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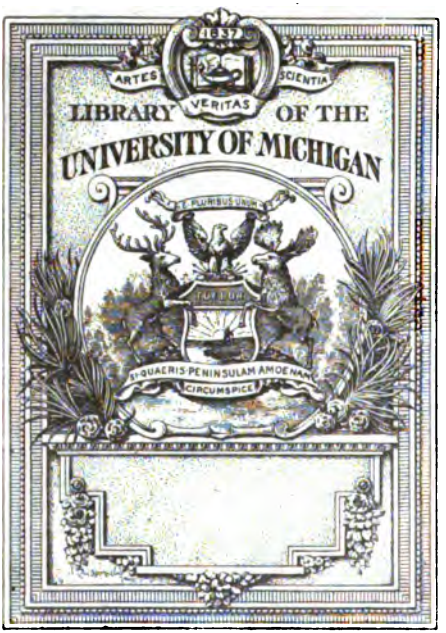
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BULLETIN OF THE STATE UNIVERSITY OF IOWA
NEW SERIES NO. 53 JUNE, 1902

CALENDAR

OF

THE STATE UNIVERSITY OF IOWA

IOWA CITY

1901-1902

PUBLISHED BY THE UNIVERSITY
IOWA CITY, IOWA
1902

THE UNIVERSITY BULLETINS PUBLISHED BY THE UNIVERSITY ARE ISSUED EVERY SIX WEEKS, DURING THE ACADEMIC YEAR, AT LEAST SIX NUMBERS EVERY CALENDAR YEAR. ENTERED AT THE POST OFFICE IN IOWA CITY AS SECOND CLASS MAIL MATTER.

By authority of the Board of Regents separate announcements of the following colleges and schools will be sent gratuitously, postage paid, to all persons who apply for them: Graduate College; College of Liberal Arts; of Law; of Medicine; of Homœopathic Medicine; of Dentistry; of Pharmacy; Iowa School of Political and Social Science; the Summer Session. In calling for announcements please state the college or school concerning which you desire information.

Address

THE PRESIDENT,
The State University of Iowa,
Iowa City, Iowa.

THE

STATE UNIVERSITY OF IOWA

IOWA CITY

CALENDAR

1901 – 1902

PUBLISHED BY THE UNIVERSITY
IOWA CITY, IOWA
1902

CALENDAR FOR 1902-1903

1902

JULY

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1903

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THE UNIVERSITY CALENDAR

1902–1903

1902

June 6, Friday	Anniversary exercises of the literary societies, 8 P. M.
June 8, Sunday	Baccalaureate address, 4 P. M.
June 9, Monday	Class Day exercises. Battalion drill and dress parade. Review by the Governor of Iowa, 4 P. M.
June 10, Tuesday	Alumni Day. Phi Beta Kappa address, 10 A. M. Alumni meeting, 2 P. M. Alumni dinner, 6 P. M.
June 11, Wednesday	Addresses before the Colleges. President's reception, 4 P. M.
June 12, Thursday	Commencement, all colleges, 10 A. M.
June 14, Saturday	Registration for Summer Session begins, 9 A. M.
June 16, Monday	Instruction begins in the Summer Session, 7 A. M.
July 24, 25, Thursday, Friday	Examination by the State Board of Educational Examiners.
July 26, Saturday	Summer Session ends.

SUMMER VACATION

Sept. 22, Monday	Examinations for admission. Registration in all Colleges begins at 2 P. M.
Sept. 25, Thursday	Instruction begins in all colleges at 8 A. M. University Convocation; address by the President, 4 P. M.
Nov. 26, Wednesday	First quarter ends. Thanksgiving recess begins, 12 M.
Nov. 27, Thursday	Thanksgiving Day.
Dec. 2, Tuesday	Second quarter begins, 8 A. M. (Work will be required on Saturday, Dec. 6).
Dec. 24, Wednesday	Holiday recess begins, 8 A. M.

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1903

Jan. 6, Tuesday	Work resumed in all colleges, 8 A. M.
Feb. 6, Friday	First semester ends.
Feb. 10, Tuesday	Second semester begins, 8 A. M. (Work will be required on Saturday, Feb. 14.)
Feb. 23, Monday	University Convocation in celebration of Washington's birthday.
April 9, Thursday	Third quarter ends. Easter recess begins, 12 M.
April 14, Tuesday	Fourth quarter begins, 8 A. M. (Work will be required on Saturday, April 18.)
May 30, Saturday	Decoration Day.
June 12, Friday	Anniversary exercises of the literary societies, 8 P. M.
June 14, Sunday	Baccalaureate address, 4 P. M.
June 15, Monday	Class Day exercises.
	Battalion drill and dress parade. Review by the Governor of Iowa, 4 P. M.
June 16, Tuesday	Alumni Day.
	Phi Beta Kappa address, 10 A. M.
	Alumni meeting, 2 P. M.
	Alumni dinner, 6 P. M.
June 17, Wednesday	Commencement, all colleges, 10 A. M.
	President's reception, 4 P. M.
	Commencement Ball, 9 P. M.
June 22, Monday	Summer Session begins.
July 30, 31, Thursday, Friday	Examination by the State Board of Educational Examiners.
Aug. 1, Saturday	Summer Session ends.
Sept. 21, Monday	Examinations for admission.
	Registration in all colleges begins at 2 P. M.
Sept. 24, Thursday	Instruction begins in all colleges, 8 A. M.

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JOHN FRANKLIN BROWN, PH. D., Inspector of Schools.

HERBERT CLIFFORD DORCAS, B. PH., University Examiner.

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ALICE YOUNG, B. L., Dean of Women.

BERTHA BELLE QUAINTANCE, B. A., Registrar.

ARTHUR FAIRBANKS, PH. D., University Editor.

LUTHER ALBERTUS BREWER, M. A., University Publisher.

ALICE BRADSTREET CHASE, Secretary to the President.

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LIBRARY—The President, Regent P. K. Holbrook, Professors Fairbanks, Nutting, Shambaugh, Andrews, Hayes, Breene, Dean; Mrs. Ridgway, Secretary.

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PUBLICATIONS—Professor Macbride, the President, Professors Loos, Ansley, Richards, Fairbanks.

SECONDARY SCHOOLS AND ENTRANCE EXAMINATIONS—Professors Calvin, Bolton, Macbride, Rockwood, Hosford, Dorcas.

THE COLLEGES

AMOS NOYES CURRIER, LL. D., Dean of the College of Liberal Arts.

CHARLES NOBLE GREGORY, M. A., LL. D., Dean of the College of Law.

*WILLIAM DRUMMOND MIDDLETON, M. D., Dean of the College of Medicine.

GEORGE ROYAL, M. D., Dean of the College of Homœopathic Medicine.

WILLIAM SUITS HOSFORD, D. D. S., Dean of the College of Dentistry.

EMIL LOUIS BOERNER, PHAR. D., Dean of the College of Pharmacy.

LAENAS GIFFORD WELD, M. A., Dean of the Graduate College.

ISAAC A. LOOS, D. C. L., Director of the Iowa School of Social and Political Science.

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HARRY SANGER RICHARDS, LL. B., Secretary of the Law Faculty.

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JAMES GRANT GILCHRIST, M. D., Secretary of the Homœopathic Medical Faculty.

ARTHUR FAIRBANKS, PH. D., Secretary of the Graduate Faculty.

FIRST LIEUTENANT GEORGE RITTER BURNETT, U. S. A., Commandant of the Cadet Battalion.

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LAWRENCE W. LITTIG, M. D., Director of the University Hospital.

SUSAN G. PARRISH, Principal of the Training School for Nurses.

JAMES GRANT GILCHRIST, M. D., Director of the Homœopathic Hospital.

ELVA M. DUNHAM, Superintendent of Training School for Nurses, and of the Homœopathic Hospital.

THE LIBRARY AND MUSEUM

BERTHA GILCHRIST RIDGWAY, Librarian.

CHARLES CLEVELAND NUTTING, M. A., Curator of the Museum.

BOHUMIL SHIMEK, C. E., Curator of the Herbarium.

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*Died, April 5, 1902.

PUBLIC LECTURES

1901.

Sept. 19, Convocation: Memorial Service for President McKinley; Address by Charles Noble Gregory, Dean of the College of Law.

Oct. 9, Auspices of Sigma Xi: Professor Samuel Calvin, "The Pleistocene of Iowa."

Oct. 24, Auspices of School of Political and Social Science: Professor Richard T. Ely, University of Wisconsin, "The Twentieth Century City."

1902.

Jan. 23, Convocation: Dedication of Hall of Liberal Arts.

Jan. 27, Auspices of Graduate Club: Miss Harriet A. Boyd, Smith College, "American Excavations in Crete."

Feb. 8, Auspices of Edda: Professor Rasmus B. Anderson, "Our Teutonic Epic."

Feb. 10, Professor Frank K. Sanders, Yale University, "The Modern Study of the Bible."

Feb. 22, Convocation: Washington's Birthday, President Benjamin F. Trueblood, Boston, "The Historic Development of International Peace."

Feb. 22, Auspices of Sigma Xi: Professor C. F. Millspaugh, Chicago, "Yucatan, and its Lost Civilization."

March 15, Vesper Service: Professor W. D. Mackenzie, D.D., Chicago Theological Seminary.

April 23–25, Auspices of School of Political and Social Science: Professor J. C. Monaghan, University of Wisconsin, School of Commerce, "Our diplomatic service and our foreign relations; Our consular service and commercial expansion; The German system of commercial education."

April 28–May 3, Auspices of School of Political and Social Science: Attorney-at-law E. M. Neally, Burlington, Iowa, "Anarchism, its theory and early history; The program of anarchism; The theory of socialism; The program of socialism; The sociological conception of society."

May 1, Auspices of Cercle Français: M. Hugues Le Roux, "Le roman contemporain est-il une peinture exacte de la société française?"

Dec. to March—Dramatic Recitals: Mrs. Emma Payne Erskine, "An Author's Reading"; Miss Katherine Jewell Everts, "To Have and To Hold," "Four of Shakespeare's Heroines"; Mrs. Josephine Etter Powell, "The Little Minister"; Professor Gordon and Miss Everts, "Lecture Recital upon Rudyard Kipling"; Robert Joseph Brown, "Richard III"; Miss Mary Sleight Everts, "A Programme of Short Stories"; Henry Evarts Gordon, "The Marble Faun."

Feb. to May—Departments of Greek and Latin: A course of illustrated lectures on Greek Religion and on Greek Architecture by Professor Fairbanks; and on Pompeii and Roman Life by Assistant Professor Chase.

Oct. to June — Department of Botany: Illustrated lectures weekly on topics connected with plant structure and plant life.

Nov. to May—Department of Geology: Illustrated lectures by Professor Calvin.

ORGANIZATION OF THE UNIVERSITY

The State University of Iowa is an integral part of the public school system of the state. As required by law, the work of the University is based upon the preparation afforded by the duly accredited high schools of the state, whose graduates are admitted to the undergraduate and professional courses upon presentation of the proper certificates. A sense of this vital connection with the public schools determines, in a large measure, the requirements for admission to the University, its spirit, and its courses of study.

The control of the University is intrusted to a Board of Regents, consisting of the Governor of the State and the Superintendent of Public Instruction *ex-officiis*, and of one member from each of the eleven congressional districts, elected by the General Assembly.

The University is administered through the following organizations:

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THE COLLEGE OF MEDICINE;

THE COLLEGE OF HOMŒOPATHIC MEDICINE;

THE COLLEGE OF DENTISTRY;

THE COLLEGE OF PHARMACY;

THE GRADUATE COLLEGE;

IOWA SCHOOL OF POLITICAL AND SOCIAL SCIENCE;

THE HOSPITALS.

THE MEMBERS OF THE FACULTIES

AND OTHER OFFICERS

GEORGE EDWIN MACLEAN, B. A., 1871; M. A., 1874, Williams; B. D., 1877, Yale; PH. D., 1883, Leipzig; LL. D., 1895, Williams.

President, 1899.* 603 College St. (Old Capitol)

AMOS NOYES CURRIER, B. A., 1856; M. A., 1859, Dartmouth; LL. D., 1893, Des Moines.

Professor of Latin Language and Literature, and Dean of the College of Liberal Arts, 1867. 32 Bloomington St. (108 Liberal Arts)

PHILO JUDSON FARNSWORTH, B. A., 1854; M. A., 1857; M. D., 1858, Vermont; M. D., 1860, Coll. Phys. and Sur., New York.

Emeritus Professor of Materia Medica and Diseases of Children in the College of Medicine, 1868. Clinton, Iowa

JOHN CLINTON SHRADER, M. D., 1865, Coll. Phys. and Sur., Keokuk; M. D., Long Island Coll. Hospital, Brooklyn, N. Y.; M. A., 1877; LL. D., 1894, Western Coll.

Emeritus Professor of Obstetrics and Diseases of Women, 1869. 811 College St.

†WILLIAM DRUMMOND MIDDLETON, M. D., 1868, Bellevue, N. Y.; M. A., 1885, Iowa.

Professor of Surgery, and Dean of the College of Medicine, 1869. Davenport, Ia. (University Hospital)

SAMUEL CALVIN, M. A., 1874, Cornell; PH. D., 1888, Lenox.

Professor of Geology, 1874. 522 N. Clinton St. (Science Hall, first floor)

THOMAS HUSTON MACBRIDE, B. A., 1869; M. A., 1873, Monmouth; PH. D., 1895, Lenox.

Professor of Botany, 1878. 726 Washington St. (Science Hall, second floor)

JAMES GRANT GILCHRIST, M. D., 1863; M. A., 1890, Pennsylvania.

Professor of Surgery and Surgical Gynecology, and Secretary of the College of Homœopathic Medicine, 1882. 215 College St. (Homœopathic Hospital)

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*Date following title indicates year of appointment to service in the University. The names are arranged in groups according to seniority of appointment to present rank.

†Died, April 5, 1902.

EMIL LOUIS BOERNER, Ph. G., 1876, Philadelphia Coll. of Phar.; Phar. D., 1896, Iowa.

Professor of Practical Pharmacy, and Dean of the College of Pharmacy, 1885. 325 N. Dubuque St. (Pharmacy Laboratory)

LAUNCELOT WINCHESTER ANDREWS, B. PH., 1875, Yale; M. A., PH. D., 1882, Goettingen.

Professor of Chemistry, 1885.
229 S. Johnson St. (Chemical Laboratory)

CHARLES HERBERT COGSWELL, M. D., Hahnemann College, Chicago.

Professor of Obstetrics and Diseases of Women in the College of Homœopathic Medicine, 1885.
Cedar Rapids, Ia. (Hom. Med. Hospital)

GEORGE THOMAS WHITE PATRICK, B. A., 1878, Iowa; B. D., 1885, Yale; PH. D., 1888, Johns Hopkins.

Professor of Philosophy, 1887. 704 N. Dubuque St. (209 Liberal Arts)

CHARLES BUNDY WILSON, B. A., 1884; M. A., 1886, Cornell University.

Professor of German Language and Literature, and Secretary of the University Senate, 1888. 919 E. College St. (101 Liberal Arts)

LAWRENCE WILLIAM LITTIG, B. A., 1880; M. A., 1882, St. Vincent's College; M. D., 1883, Iowa; M. D., 1884, Pennsylvania; M. R. C. S., 1887, England.

Professor of Theory and Practice of Medicine, and Clinical Medicine in the College of Medicine, 1889. 102 S. Linn St.

ANDREW ANDERSON VEBLEN, B. A., 1877; M. A., 1880, Carleton College.

Professor of Physics, 1883. 707 N. Dubuque St. (Hall of Physics)

LAENAS GIFFORD WELD, B. S., 1883; M. A., 1885, Iowa.

Professor of Mathematics, and Dean of the Graduate College, 1886.
612 N. Dubuque St. (113 Liberal Arts)

CHARLES CLEVELAND NUTTING, B. A., 1880; M. A., 1882, Blackburn University.

Professor of Zoology, and Curator of the Museum of Natural History, 1886. 922 E. Washington St. (Science Hall, third floor)

JAMES RENWICK GUTHRIE, B. S., 1878; M. A., 1881, Lenox; M. D., 1884, Iowa.

Professor of Obstetrics and Gynecology in the College of Medicine, 1889.
Dubuque, Ia. (University Hospital)

ISAAC ALTHAUS LOOS, B. A., 1876; M. A., 1879, Otterbein; B. D., 1881, Yale; D. C. L., 1898, Penn Coll.

Professor of Sociology and Political Philosophy, and Director of the School of Political and Social Science, 1889.
22 E. Bloomington St. (205 Liberal Arts)

SAMUEL HAYES, B. S., 1869; M. S., 1876, Michigan; LL. B., 1891, Iowa.

Professor of Law, 1891. 614 N. Dubuque St. (11 Old Capitol)

ELBERT WILLIAM ROCKWOOD, B. S., 1884, Amherst; M. D., 1895, Iowa.

Professor of Chemistry and Toxicology, and Secretary of the Faculty of the College of Medicine, 1888.
1011 Woodlawn. (Chemical Laboratory)

GEORGE ROYAL, M. D., 1882, N. Y. Hom. Med. Coll.

Professor of Materia Medica and Therapeutics, and Dean of the College of Homœopathic Medicine, 1892.
1234 Sixth Ave., Des Moines, Iowa. (Hom. Hospital)

JAMES WILLIAM DALBEY, B. S., 1885; M. D., 1888, Illinois Coll.

Professor of Ophthalmology in the College of Medicine, 1889.
Cedar Rapids, Ia. (University Hospital)

CHARLES SUMNER CHASE, B. A., 1871, Cedar Valley Sem.; B. S., I. S. C., Ames; M. A., 1876, Iowa; M. D., 1882, Rush Medical Coll.

Professor of Materia Medica and Therapeutics in the College of Medicine, 1892. Waterloo Ia. (University Hospital)

FRANK JOHN NEWBERRY, M. D., 1888, Chicago Hom. Med. Coll.; M. D., 1891, Illinois Medical; M. S., 1893, Upper Iowa University; O. et A. Chir., 1890, New York Ophthalmic.

Professor of Ophthalmology, Otology, and Physical Diagnosis, and Diseases of the Respiratory Tract in the College of Homœopathic Medicine, 1890. 325 Summit St. (Hom. Hospital)

WALTER LAWRENCE BIERRING, M. D., 1892, Iowa.

Professor of Bacteriology and Pathology, 1893.
Cor. Governor St. and Iowa Ave. (1 Liberal Arts)

WILLIAM CRAIG WILCOX, B. A., 1888; M. A., 1891, University of Rochester.

Professor of History, and Secretary of the Faculty of the College of Liberal Arts, 1894. 629 N. Dubuque St. (222 Liberal Arts)

FRANK THOMAS BREENE, D. D. S., 1883; M. D., 1893, Iowa.

Professor of Operative and Clinical Dentistry, and Therapeutics, 1888.
419 N. Clinton St. (Dental Hall)

WILLIAM S. HOSFORD, B. A., 1883; D. D. S., 1892, Iowa.

Professor of Dental Prosthesis, and Dean of the College of Dentistry, 1883. 505 College St. (1 Dental Hall)

FREDERIC C. L. VAN STEENDEREN, M. A., 1893, Penn Coll.

Professor of French Language and Literature, 1893.
309 Church St. (120 Liberal Arts)

ALFRED VARLEY SIMS, C. E., 1888, Pennsylvania.

Professor of Civil Engineering, 1895. Bloom Terrace. (South Hall)

JOHN WALTER HARRIMAN, M. D., 1891, Iowa.

Professor of Anatomy, and Director of Hospital, College of Medicine, 1896. 1 Bloom Terrace. (Medical Hall)

MARTIN JOSEPH WADE, LL. B., 1886, Iowa.

Professor of Medical Jurisprudence in the College of Medicine, and Lecturer on Law in the College of Law. 123 N. Clinton St.

WILLIAM HARPER DEFORD, B. A., 1880, W. Maryland Coll.; D. D. S., 1882, Baltimore; M. A., 1883, W. Maryland Coll.; M. D., 1883, Baltimore.

Professor of Oral Pathology and Hygiene in the College of Dentistry, 1892. Cedar Rapids, Ia. (Dental Hall)

GILBERT LOGAN HOUSER, B. S., 1891; M. S., 1892, Iowa; PH. D., 1901, Johns Hopkins.

Professor of Animal Morphology and Physiology, 1892.
422 Iowa Ave. (Science Hall, first floor)

BENJAMIN FRANKLIN SHAMBAUGH, B. PH., 1892; M. A., 1893, Iowa; PH. D., 1895, Pennsylvania.

Professor of Political Science, 1895.
219 N. Clinton St. (201 Liberal Arts)

WILLIAM ROBERT WHITEIS, B. S., 1892; M. D., 1895; M. S., 1895, Iowa.

Professor of Histology and Embryology in the College of Medicine, 1898. 425 Iowa Ave. (Histological Laboratory—16 Liberal Arts)

HARRY SANGER RICHARDS, PH. B., 1892, Iowa; LL. B., 1895, Harvard.

Professor of Law, 1898. 402 Church St. (Old Capitol)

LEE WALLACE DEAN, B. S., 1894; M. S., 1896; M. D., 1896, Iowa.

Professor of Physiology, 1898.
12½ S. Clinton St. (Physiological Laboratory)

ELMER ALMY WILCOX, B. A., 1891, Brown.

Professor of Law, 1899. 1026 Washington St. (12 Old Capitol)

CLARK FISHER ANSLEY, B. A., 1890, Nebraska.

Professor of English, 1899. 1041 Woodlawn. (227 Liberal Arts)

FREDERICK BECKER, M. D., 1875, Hom. Med. Coll. of Missouri; M. D., 1882, Coll. Phys. and Sur., St. Louis.

Professor of Theory and Practice of Medicine in the College of Homœopathic Medicine, 1899. Clermont, Ia. (Hom. Med. Hospital)

LEONA ANGELINE CALL, B. A., 1880; M. A., 1883, Iowa.

Professor of Greek Language and Literature, 1885.
21 N. Dubuque St. (106 Liberal Arts)

THE REV. HENRY EVARTS GORDON, B. A., 1879; M. A., 1901, Amherst.

Professor of Public Speaking, 1900.
419 Iowa Ave. (312 Liberal Arts)

THE REV. ARTHUR FAIRBANKS, B. A., 1886, Dartmouth; PH. D., 1890, Freiburg, i. B.

Professor of Greek Literature and Archæology, and Secretary of the Graduate Faculty, University Editor, 1900.
7 E. Bloomington St. (310 Liberal Arts)

ALDEN ARTHUR KNIPE, M. D., 1896, Pennsylvania.

Director of Physical Culture, 1900. (5a Liberal Arts)

FREDERICK ELMER BOLTON, B. S., 1893; M. S., 1896, Wisconsin; PH. D., 1898, Clark.
Professor of the Science and Art of Education, 1900.
1019 College St. (217 Liberal Arts)

WILLIAM J. BRADY, D. D. S., 1886, Iowa.
Professor of Orthodontia and Dental Technic, 1899.
1027 College St. (Dental Hall)

FIRST LIEUTENANT GEORGE RITTER BURNETT, U. S. A.
Professor of Military Science and Tactics; and Commandant of the Cadet Battalion, 1901. 510 College St. (Armory)

CHARLES NOBLE GREGORY, B. A., 1871; LL.B., 1872; M. A., 1876; LL.D., 1901, Wisconsin.
Professor of Law, and Dean of the College of Law, 1901.
227 N. Clinton St. (Old Capitol)

ERNEST ALBERT ROGERS, D. D. S., 1892, Iowa.
Professor of Dental Anatomy and Regional Anatomy, and Clinical Demonstrator in the College of Dentistry, 1893.
527 N. Linn St. (Dental Hall)

CHARLES SCOTT MAGOWAN, C. E., 1884; M. A., 1887, Iowa.
Assistant Professor of Civil Engineering, 1886.
304 Summit St. (South Hall)

BOHUMIL SHIMEK, C. E., 1883, Iowa.
Assistant Professor of Botany, and Curator of the Herbarium, 1895.
(Science Hall, second floor)

ARTHUR G. SMITH, B. PH., 1891; M. A., 1895, Iowa.
Assistant Professor of Mathematics, 1893.
West Side. (12 Liberal Arts)

HENRY FREDERICK WICKHAM, M. S., 1894, Iowa.
Assistant Professor of Zoology, and Assistant Curator of the Museum of Natural History, 1894. 911 Iowa Ave. (Science Hall, third floor)

*FRANKLIN HAZEN POTTER, B. A., 1892; M. A., 1895, Colgate.
Assistant Professor of Latin, 1895. 527 N. Linn St. (111 Liberal Arts)

CARL EMIL SEASHORE, B. A., 1891, Gustavus Adolphus; PH. D., 1895, Yale.
Assistant Professor of Philosophy, 1897.
208 Fairchild St. (211 Liberal Arts)

ALICE YOUNG, B. L., 1896, Minnesota.
Assistant Professor of English, and Dean of Women, 1900.
111 N. Clinton St. (117 Liberal Arts)

FREDERIC BERNARD STURM, B. A., 1892, Michigan.
Assistant Professor of German, 1892.
423 Iowa Avenue. (7 Liberal Arts)

WILBER JOHN TEETERS, B. S., 1893; M. S., 1898, Mt. Union College; PH. C., 1895, Michigan.
Assistant Professor of Chemistry, 1895. 222 Ronalds St. (Chem. Lab.)

*Absent on leave.

CLARENCE WILLIS EASTMAN, B. S., 1894, Worcester Polytechnic; M. A., PH. D., 1898, Leipzig.
Assistant Professor of German, 1898.
430 N. Clinton St. (8 Liberal Arts)

GEORGE T. FLOM, B. L., 1893, Wisconsin; M. A., 1894, Vanderbilt; PH. D., 1899, Columbia.
Assistant Professor in charge of Scandinavian Languages and Literatures, 1900. 124 Church St. (10 Liberal Arts)

RUSSELL D. GEORGE, M. A., 1898, McMaster University, Toronto.
Assistant Professor of Geology, 1900. 222 Ronalds St. (Hall of Science)

*WILLIAM ROLLA PATTERSON, B. Di., 1888; B. S., 1889, Iowa State Normal; B. PH., 1895, Iowa; PH. D., 1898, Pennsylvania.
Assistant Professor of Statistics and Economics, 1898.
505 Washington St. (209 Liberal Arts)

HARRY GRANT PLUM, B. PH., 1894; M. A., 1896, Iowa.
Assistant Professor of History, 1900.
419 N. Dubuque St. (315 Liberal Arts)

JOHN FRANKLIN BROWN, B. PH., 1889; M. A., 1895, Earlham; PH. D., 1896, Cornell.
Assistant Professor of the Science and Art of Education, and Inspector of High Schools, 1901. 19 Market St. (216 Liberal Arts)

CLEVELAND KING CHASE, B. A., 1891; M. A., 1896, Oberlin.
Assistant Professor of Latin, 1901. 225 Fairchild St. (111 Liberal Arts)

EMLIN MCCLAIN, B. PH., 1871; B. A., 1872; LL. B., 1873; M. A., 1882; LL. D., 1891, Iowa; LL. D., 1891, Findlay College.
Lecturer on Law, 1881. 414 Brown St. (Old Capitol)

GERSHOM HYDE HILL, B. A., 1871, Iowa Coll.; M. D., 1874, Rush Medical; M. A., 1881, Iowa Coll.
Lecturer on Insanity, 1890. Independence, Iowa

JOSEPH JASPER MCCONNELL, B. A., 1876; B. DI., 1878; M. A., 1880, Iowa.
Lecturer on the Science and Art of Education, 1891. Cedar Rapids

HORACE EMERSON DEEMER, LL. B., 1879, Iowa.
Lecturer on Law, 1899. Red Oak, Iowa

JAMES FRED CLARK, B. A., 1886; M. A., 1889, Iowa; M. D., Pennsylvania.
Lecturer on Hygiene in the College of Medicine, 1899. Fairfield, Iowa

JOHN BLAIR KESSLER, M. D., 1887, Iowa.
Lecturer on Dermatology in the College of Medicine, 1899.
Cor. Clinton and Washington Sts.

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*Absent on leave.

ELI GRIMES, M. D., 1897, Iowa.
Lecturer on Electro-Therapeutics in the College of Medicine, 1900.
Des Moines, Iowa

GEORGE EDWARD DECKER, B. S., 1895; M. D., 1897, Iowa.
Lecturer on Pædiatrics in the College of Medicine, 1900.
Davenport, Iowa

WILLIAM LECLAIRE BYWATER., M. D., 1897, Iowa; O. et A. Chir., 1900, New York Ophthalmic.
Lecturer on Diseases of Women in the College of Homœopathic Medicine, 1900. 325 Summit St. (Homœopathic Hospital)

LUTHER ALBERTUS BREWER, B. A., 1883; M. A., 1886, Pennsylvania College.
Lecturer on Journalism, University Publisher, 1900. Cedar Rapids

JENNINGS PRICE CRAWFORD, M. D., 1883, Iowa.
Lecturer on Operative Technic, 1900. Davenport, Iowa

CHARLES R. BAKER, D. D. S.
Lecturer on Ceramics.

BERTHA GILCHRIST RIDGWAY,
Librarian, 1898. 4 Jefferson St. (General Library, Liberal Arts)

HARRIET ANN WOOD, B. A., 1893, Vassar.
Cataloguer, 1901. 21 N. Dubuque St. (306 Liberal Arts)

MARGARET BUDINGTON.
Assistant Cataloguer, 1902. 122 N. Capitol St. (306 Liberal Arts)

BESSIE G. PARKER, PH. B., 1893, Iowa.
Assistant in the Library, 1898. 14 Burlington St. (Library)

HUGO CLAUDE HORACK, B. PH., 1899, LL. B., 1900, Iowa.
Law Librarian. 120 N. Dodge St. (Old Capitol)

BERTHA BELLE QUAINTANCE, B. A., 1899, Nebraska.
Registrar, 1900. 111 N. Clinton St. (Old Capitol)

JOANNA GLEED STRANGE.
Assistant in the Library, 1901.

GRACE E. SWITZER.
Assistant in the Library, 1901.

JOHN OGELVIE STEVENSON.
Assistant in the Law Library.

FRED SHERMAN.
Assistant in the Law Library.

WALTER S. FARQUAR.
Assistant in the Law Library.

HERBERT C. DORCAS, B. PH., 1895, Iowa.
Instructor in Pedagogy, and University Examiner, 1895.
427 Ronalds St. (218 Liberal Arts)

FRANK BOYNTON JAMES, D. D. S., 1897, Iowa.
Demonstrator in the College of Dentistry, 1895.

LOUISE ELIZABETH HUGHES, B. PH., 1878; M. A., 1881; B. A., 1899, Iowa.
Instructor in Latin, 1896. 122 N. Capitol St. (112 Liberal Arts)

CARL LEOPOLD VON ENDE, B. S., 1893; M. S. 1894, Iowa; PH. D., 1899, Goettingen.
Instructor in Chemistry, 1899. 220 S. Johnson St. (Chem. Lab'y)

JOHN VAN ETTEN WESTFALL, B. S., 1895, Cornell University; PH. D., 1898, Leipzig.
Instructor in Mathematics, 1899. 127½ S. Dubuque St. (12 Liberal Arts)

SIVERT N. HAGEN, B. A., 1896, Luther College; PH. D., 1900, Johns Hopkins.
Instructor in English, 1900. 308 Summit St. (207 Liberal Arts)

CHARLES F. LORENZ, B. S., 1897; M. S., 1898, Iowa.
Instructor in Physics, 1900. 215 Ronalds St. (Hall of Physics)

JOHN J. LAMBERT, B. Di., 1896; M. Di., 1897, Iowa State Normal; B. PH., 1899; M. S., 1901, Iowa.
Instructor in Animal Morphology and Physiology, 1898.
304 Davenport St. (Science Hall)

*JOHN T. MCCLINTOCK, B. A., 1894, Parsons College; M. D., 1898, Iowa.
Demonstrator of Anatomy, Pathology and Bacteriology in the College of Medicine, 1898. 411 S. Dubuque St.

FRANCIS NEWTON BRINK, B. PH., 1899, Iowa.
Instructor in Chemistry, 1898. 319 Church St. (Chemical Laboratory)

ADELBERT W. STARBUCK, D. D. S., 1898, Iowa.
Demonstrator of Operative Dentistry, 1900.
122 Court St. (Dental Hall)

ORMAN E. MCCARTNEY, D. D. S., 1900, Iowa.
Demonstrator of Prosthetic Dentistry, 1900.
20 South Linn St. (Dental Hall)

THEODORE WILBERT KEMMERER, B. S., 1900, Iowa.
Demonstrator of Pathology and Bacteriology, 1900. 121 N. Dubuque

CHARLES WILLIS JOHNSON, PH. C., 1896; B. S., 1900, Michigan.
Instructor in Chemistry, 1901. 507 S. Dubuque St. (Chem. Lab.)

STEPHEN HAYES BUSH, B. A., 1901; M. A., 1902, Harvard.
Instructor in French, 1901. 124 Church St. (120 Liberal Arts)

JOHN P. MULLIN, M. D., 1893, Iowa.
Demonstrator of Anatomy, 1901. 104 E. Bloomington

SAM BERKELEY SLOAN, B. A., 1899, Nebraska.
Assistant Instructor in English, 1899.
506 N. Linn St. (118 Liberal Arts)

*Absent on leave in Europe, 1901.

CLYDE B. COOPER, B. A., 1897, Nebraska.
Assistant Instructor in English, 1900.
209 Bloomington St. (5 Liberal Arts)

GAYLORD D. WEEKS, B. S. in C. E., 1901, Iowa.
Assistant Instructor in Civil Engineering, 1900.
304 Summit St. (South Hall)

SIMEON E. THOMAS, B. S., 1898, Upper Iowa University; M. A., 1901, Iowa.
Assistant Instructor in Political Science, 1900.
229 Iowa Avenue. (203 Liberal Arts)

WILLIAM E. BECK, B. S., 1900, Iowa.
Assistant Instructor in Mathematics, 1900.
518 S. Clinton St. (14 Liberal Arts)

HENRY WALDGRAVE STUART, B. PH., 1895, California; PH. D., 1900, Chicago.
Assistant Instructor in Philosophy, 1901.
725 N. Linn St., (214 Liberal Arts)

A. J. BURGE, M. D., 1900, Iowa.
Assistant Instructor in Theory and Practice in the College of Medicine, 1901. 22½ S. Clinton St.

HENRY MORROW, JR., D. D. S., 1897, Iowa,
Assistant Demonstrator in the College of Dentistry, 1901.
505 College St. (Dental Hall)

FRED. W. BAILEY, B. S., 1901, Iowa.
Assistant Instructor in Physiology, in the College of Medicine, 1901.
214 Davenport St. (Clinton St. Building)

GEORGE LUTHER CADY, B. A., Olivet College.
Honorary Fellow in Sociology, 1900. 25 N. Dubuque St.

JACOB E. CONNER, B. A., 1891, Iowa.
Fellow in Sociology and Political Philosophy, 1900. 229 Iowa Avenue

ALICE ANKENEY, B. A., 1897, Wells College.
Fellow in Chemistry, 1901. 21 N. Dubuque St.

HELEN M. EDDY, B. A., 1900, Iowa.
Fellow in Latin, 1901. 4 Jefferson St. (112 Liberal Arts)

FRANK HARMON GARVER, B. A., 1898, Upper Iowa University.
Fellow in History, 1901. 114 Fairchild St.

PERCIVAL HUNT, B. A., 1900, Iowa.
Fellow in English, 1900. 329 N. Dubuque St.

KIYOSHI KAWAKAMI, B. L., 1899, Tokyo Law College; B. A., 1900, Aoyama Anglo-Japanese College, Tokyo.
Fellow in Political Science, 1901. 325 S. Dubuque St.

LEE PAUL SIEG, B. S., 1900; M. S., 1901, Iowa.
Fellow in Physics, 1900. (Hall of Physics)

FRANK ALBERT STROMSTEN, B. S., 1900, Iowa.
Fellow in Animal Morphology, 1900. 1017 College St.

CHARLES ALLYN WILLIAMS, B. A., 1899; M. A., 1901, Iowa.
Fellow in German, 1901. 413 Iowa Avenue

MABEL CLARE WILLIAMS, B. PH., 1899, Iowa.
Fellow in Philosophy, 1899. 413 Iowa Avenue

MARK WAYNE WILLIAMS, B. A., 1898, Iowa.
Fellow in Psychology, 1901. 304 Davenport St.

*JAMES ELLIS GOW, B. PH., 1901, Iowa.
Scholar in Botany, 1900. 122 N. Capitol St.

JOHN GABBERT BOWMAN, B. A., 1899, Iowa.
Scholar in English, 1901. 215 Ronalds St.

HUGH STRAIGHT BUFFUM, B. A., 1901, Iowa.
Scholar in Public Speaking, 1901. 406 N. Gilbert St.

HARRY E. BURTON, B. A., 1901, Iowa.
Scholar in Mathematics, 1901. 517 N. Linn St.

MYRON C. GASTON, B. A., 1901, Tabor College.
Scholar in Greek, 1901. 121 Burlington St.

VICTORIA HRUSKA, B. A., 1901, Iowa.
Scholar in French, 1901. 114 N. Capitol St.

JAMES H. LEES, B. Di., 1893; M. Di., 1897, Iowa State Normal; B. A., 1901, Coe College.
Scholar in Geology, 1901. 220 E. Burlington St.

J. H. PAARMANN, B. S., 1901, Iowa.
Scholar in Zoology, 1901. 410 Ronalds St.

MARY E. POLK, B. A., 1900, Iowa.
Scholar in English, 1901. 26 Jefferson St.

GEORGE CHESTER WISE, B. PH., 1900, Iowa.
Scholar in German, 1901. 121 E. Bloomington St.

ZADA MARY COOPER, PH. G., 1897, Iowa.
Assistant in the Pharmacy Laboratory.
422 S. Dubuque St. (Pharm. Lab.)

LEORA JOHNSON, M. D., 1890, Iowa.
Clinical Assistant to the Chair of Surgery, College of Homœopathic Medicine, 1890. 12 N. Clinton St. (Hom. Hospital)

RAYMOND E. PECK, M. D., 1897, Iowa.
Assistant to the Chair of Surgery. Davenport, Ia.

BERTHA A. WILLIAMS, B. PH., 1888, Iowa.
Assistant in French, 1900. West Side

BENJAMIN RICHARD JOHNSTON, M. D., Hering Coll., Chicago.
Assistant to Chair of Theory and Practice in the College of Homœopathic Medicine, 1900.

MABEL R. MORGAN,
Assistant in Physical Training for Women, 1900. 10 Gilbert St.

CHARLES IRWIN LAMBERT, B. S., 1901, Iowa.
Assistant in Botany, 1900. 304 E. Davenport St.

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*Resigned, January, 1902.

KATHERINE PAINE, B. PH., 1889, Iowa.
Assistant in Latin, 1900. 513 Summit St. (109 Liberal Arts)

HARVEY HAYES LOCHRIDGE, B. S., 1901, Beloit.
Assistant in Chemistry, 1901. 529 Burlington St.

ALDEN ROBBINS HOOVER,
Assistant in Histology, 1901. 119 N. Capitol St.

EDWARD ELLSWORTH BLYTHE, B. PH., 1900, Iowa.
Assistant in Histology, 1901. 4 Prentiss St.

JOHN G. MUELLER, M. D., 1895, Iowa.
Assistant in Gynecology in the College of Medicine, 1901.

CHARLES SCHUTZ KRAUSE,
Laboratory Assistant in Pathology and Bacteriology in the College of Medicine, 1901.

W. M. BOEHM.
Undergraduate Assistant in Physics, 1900.
406 S. Clinton St. (Hall of Physics)

JOHN LEALAND TAYLOR.
Undergraduate Assistant in Anatomy.

HENRY DELAVAN HOLMAN.
Undergraduate Assistant in Anatomy.

MARY SLEIGHT EVERTS.
Undergraduate Assistant in Public Speaking, 1901. 419 N. Dubuque St.

JOHN CARVILLE.
Assistant in Geology. (Hall of Science)

RUDOLPH M. ANDERSON.
Taxidermist. 304 E. Davenport St.

ELVA M. DUNHAM.
Matron of the Homœopathic Hospital.

*EMMA THOMAS,

†MRS. M. A. THOMPSON,

‡MARY LOUISE REHERD,
Matron of the University Hospital.

ARCHIE B. CLAPP, M. D.,
Home Surgeon, Homœopathic Hospital, 1900.

C. H. CRETZMEYER, M. D.,
Resident Physician, University Hospital.

CLARA B. WHITMORE, B. A., 1900, Iowa.
Tutor in Medical Latin.

SUSAN G. PARISH,
Principal, Nurse's Training School.

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*Resigned, January 1, 1902.
†Resigned, January 23, 1902.
‡Appointed, February 1, 1902.

GENERAL INFORMATION

INCOME OF THE UNIVERSITY

The University enjoys the proceeds of the invested funds and lands originally given by the United States. The Twenty-Eighth General Assembly also enlarged the general support fund of the University by a permanent appropriation of $50,000 a year, making with the preceding permanent appropriation an income from this source for the University of $125,000 a year. The General Assembly also continued the one-tenth of a mill tax for building purposes. The total income for the past year including the proceeds of the building tax and the tuition fees paid by students, amounts to over $300,000.

The present financial outlook is an occasion for gratitude on the part of friends of the University, and enables the regents and faculty of the University to make enlarged provision for work over wide fields.

BUILDINGS

The University at present occupies twelve buildings, beautifully situated near the business center of Iowa City. They are as follows, the order being that in which they were erected:

The Old Capitol, in which are located the administrative offices and the College of Law. This building is the old State House erected in 1840.

South Hall. The first floor and basement have been rehabilitated since the fire for temporary use, and are occupied by the Civil Engineering Department.

The Hall of Physics, furnishes quarters for the Physical Laboratories and lecture rooms.

The Clinton Street Building, No. 14 North Clinton street, formerly the Homœopathic Hospital, now occupied by the laboratory of the department of Physiology of the College of Medicine.

The Armory, occupied by the department of Military Science.

Medical Hall has been refitted for temporary use since the fire and contains a dissecting laboratory and lecture rooms for the medical colleges.

Natural Science Hall, in which are located the four departments of biological science of the College of Liberal Arts and also the Museum of Natural History.

The Hall of Chemistry, containing the laboratories of general, medical, and pharmaceutical chemistry and a large amphitheater.

Close Hall, the home of the Young Men's and Young Women's Christian Associations of the University. This building is the property of the two associations. It contains a well-equipped gymnasium and a large auditorium, besides reading rooms, waiting rooms, parlors, committee rooms, and offices. The second floor is occupied by Literary Societies—the Zetagathian, Irving, Philomathean, Hesperian, Erodelphian, and Octave Thanet.

Dental Hall, occupied exclusively by the College of Dentistry.

The Hospital of the College of Homœopathic Medicine, affording accommodations for fifty-four patients and containing a large clinical amphitheater, dispensary, administrative office, and the library of the Homœopathic Medical College.

The Hospital of the College of Medicine, with a large amphitheater, numerous operating rooms and offices, a dispensary, and accommodations for seventy-five patients.

The Hall of Liberal Arts, is three stories and a basement in height, and contains ninety-two recitation rooms, seminary rooms and offices, ladies' waiting room, and a general lecture room with seating capacity of 350. The style of the building harmonizes with that of the Old Capitol. It is built of Bedford stone, fireproofed throughout, and is lighted with gas and electricity and equipped with a complete heating and ventilating system.

It is occupied by the departments of English, French, German, Latin, Greek, History, Sociology, Political Science, Pedagogy, Philosophy, and Mathematics, and by the General Library, and the Library of the State Historical Society.

In addition to ample lecture rooms, each department has an office and a seminary room for the use of advanced students working under the professor in charge, and for the department

of Philosophy there is a large and well-equipped psychological laboratory.

The central station for heat, light, and power is on the west campus.

The erection of a new Medical Hall will be begun in the early Spring.

THE UNIVERSITY LIBRARY

The University Library contains about 65,000 volumes, not including a large number of unbound pamphlets. Reasonable progress has been made toward replacing the 25,000 volumes lost by fire in 1897, and large orders for new books are constantly being placed. About 375 periodicals are regularly taken by the Library, which receives also the publications of many of the leading societies.

The General Library, which is in charge of a competent Librarian and five assistants, is open daily, except Sunday, from 8:00 a. m. to 10:00 p. m., and occupies, with the rooms of the State Historical Society, the third floor of the new College of Liberal Arts building. It includes the Talbot library, which is a large and valuable collection, originally containing about 4,500 volumes, somewhat miscellaneous in character, but chiefly pertaining to natural history, explorations, voyages, and travels. It numbers some very rare and valuable sets of books, as well as single volumes, many of them being very old, a few dating from the beginning of the sixteenth century. This collection suffered severely from fire in 1897, but has been rebound and is now being catalogued.

Valuable contributions to the German library, both in books and in money for the purchase of books, have been made by German-American citizens of the state.

Another collection of great interest is the Americana library, already comprising several hundred volumes, many of them rare and of considerable value. The greater number of these works have been purchased with funds subscribed for the purpose by the alumni of the University, while others have been generously contributed.

The library of the College of Law, numbering about 10,000 volumes, occupies spacious rooms on the second floor of the Old Capitol. It contains a full series of the reports of the Supreme Court of the United States and of the courts of last resort of thirty-six states, including all the series of reports

most frequently referred to; also the American Decisions; American Reports; American State Reports; Lawyers' Reports Annotated; English Ruling Cases; a collection of English Reports, which, with additions lately made, is almost complete; full series of the Reporter System; and a large collection of the latest and best law text-books.

A valuable collection of 1,200 volumes relating principally to the civil law and the history of the common law, presented to the University by Mrs. Hammond, widow of William G. Hammond, LL. D., the first Chancellor of the College of Law, is kept in the law library as a separate collection for the use of the students of the College and others interested in such subjects. These books are kept in special cases, under the charge of the law librarian, and are accessible upon request.

The reading rooms of the law library are open for the use of students from 8:00 a. m. to 12:00 m., from 1:30 to 5:30 p. m. and from 7:00 to 9:00 p. m. of each day except Saturday; and also during the forenoon of Saturday.

The Library of the College of Medicine, which was destroyed by fire in 1900, has been replaced, and comprises the latest editions of all standard works, as well as many volumes of periodicals relating to the various branches of medical science.

The College of Homœopathic Medicine possesses a valuable professional library, located in the Homœopathic Hospital.

The special libraries of many of the departments of the University are rich in literature of interest to the advanced student.

THE LIBRARY OF THE STATE HISTORICAL SOCIETY OF IOWA

The library of the Iowa State Historical Society, located in Iowa City, is open for the use of University students. This valuable collection of historical documents is rapidly growing. The society issues its own publications regularly and has on its exchange list the publications of similar societies in the United States as well as a large number of foreign publications and the publications of leading universities both at home and abroad.

MATERIAL EQUIPMENT

LABORATORIES

THE PSYCHOLOGICAL LABORATORY

The new psychological laboratory, completed in September, 1901, occupies a part of the second floor of the Hall of Liberal Arts. It includes, in common with the department of philosophy, the following rooms: Two lecture rooms, a library and seminary room, an apparatus room, a workshop, an observing room, a recording room, three general laboratory rooms, and two offices. Owing to the present crowded condition of the Hall of Liberal Arts, resulting from the recent fires, two of the above rooms are temporarily occupied by another department.

The rooms are large and well lighted, supplied with gas and electric light, and have special provisions for darkening. They are heated and ventilated by a system of indirect radiation, and supplied with water where needed. The rooms in the suite are connected by a system of concealed wires radiating from a central switchboard which has connections with a battery closet and the power house. Battery currents and the direct dynamo current may be drawn from several terminals in each room and any two or more rooms may be connected for experimental purposes by means of this system.

The observing room is practically sound-proof, light-proof and jar-proof. It is a room 12 x 14, with an ante-room 4 x 14, built inside of another room which rests upon a special foundation and has no solid contact with any other part of the building. It is lined, carpeted, and furnished in black, and is supplied with gas, electric light, switchboard connections, and a special heating and ventilating system. The main room is entered through four tight-fitting doors and when these are closed all communication with the outside takes place through telephone and electrical recording instruments. In the typical experiments the observer is left alone in this room where the conditions of the experiment can be controlled, while the experimenter manipulates the instruments in and from the recording room.

The workshop is provided with bench, lathe, motor, tools, materials for apparatus, drawing materials, mimeograph, etc.

The library and seminary room contains the entire department library, including the subjects of philosophy, psychology, logic and ethics, and is open all day for the use of students.

The laboratory is equipped with a superior collection of apparatus, illustrative material, supplies, and conveniences for use in instruction and investigation in psychology. The general equipment of the laboratory is designed to fit the plan of instruction, according to which the student in psychology may, the first year, attend a course of lectures in which a rich collection of illustrative material is used and experiments are performed before the class by the instructor. The second year, the student may himself perform a series of model experiments, and for the third and following years he may engage in the investigation of original problems. Accordingly the equipment falls into three classes: (1) apparatus, charts and other material for use in class demonstration for the first year in general psychology, (2) a complete set of apparatus for standard exercises which constitute the laboratory course for the second year, and (3) apparatus and the varied means employed in the research work, for special tests, and for advanced demonstration experiments.

LABORATORIES OF ANIMAL MORPHOLOGY AND PHYSIOLOGY

The laboratories for animal morphology and physiology occupy the west half of the first floor of the Natural Science Building, together with a portion of the basement. They are supplied with water and gas throughout, and are lighted by twenty windows.

The laboratory for the elementary courses receives light from the north. It is furnished with heavy oak, slate-topped tables, particularly adapted to the anatomical and microscopical requirements of the work. The tables will accommodate thirty students at one time.

The equipment of this laboratory includes thirty compound microscopes, as many dissecting microscopes, the requisite accessory optical apparatus, a series of over seven thousand microscopical slides, a large number of anatomical preparations, charts, and models, physiological equipment, and the numerous pieces of minor apparatus, glassware, etc., incident to general biological work.

The laboratory for the several advanced courses is lighted from the west and south. It is furnished with tables and reagent racks designed to meet the special requirements of the work pursued here. A smaller room opening from the main one supplies the conditions desired for apparatus of constant temperature. The equipment of this laboratory embraces special microscopes, sliding microtomes of approved pattern, two Minot automatic microtomes for serial sectioning, a large Lillie water bath for paraffin imbedding, a laboratory incubator for work in embryology, a warm chamber of ample size, a complete stock of biological reagents, sets of bottles for each student, a large assortment of glassware, a series of charts, and ninety-three wax models by Ziegler illustrating the embryology of Amphioxus, the Trout, the Frog, and the Chick.

Opening from the main laboratories are smaller rooms available for those pursuing special lines of investigation. The basement laboratory is utilized for aquaria, anatomical tanks, animal cages, and appliances for various lines of special work.

A reference library in English, French, and German is kept in the laboratories, and is accessible at all times during working hours. A subject index on the card catalogue system renders the literature more readily available.

ZOOLOGICAL LABORATORY

This laboratory has been newly equipped and is now able to furnish much better facilities than ever before. It is situated on the second floor of the Natural Science Building. The main items of the equipment are the following:

1. New laboratory tables designed especially for this work. They have glazed tops of alternating black and white squares to give a suitable background for dissecting or examining delicate objects in glass dishes, and drawers for the accommodation of dissecting tools, lenses, etc. The tables are provided with Welsbach burners in sufficient numbers to furnish the best of light for either dissecting or microscopic work, and will accommodate twenty-seven students.

2. A high grade dissecting microscope, provided with a jointed arm and two double achromatic lenses, for each student. On the theory that the work in zoology can be done better with a good dissecting equipment than by relying too much on the compound microscope, this laboratory has been provided with

the best dissecting microscopes and lenses that could be purchased.

3. Compound microscopes of good quality in sufficient numbers to furnish one to each two students are at present available, and it is confidently hoped that there will be one for each student before the beginning of the next collegiate year.

4. A set of ordinary dissecting tools and a Coddington lens for each student, together with a very complete equipment in the way of dissecting pans and glassware, such as watch glasses, petrie dishes, stender dishes, embryo dishes, slides, covers, etc.

5. The very extensive zoological collections in the Museum of Natural History are at the disposal of students in this department, furnishing abundant material in many groups for advanced systematic work.

Connected with the laboratory is the departmental library of zoological works, which includes among other works of reference a complete set of the "Annals and Magazine of Natural History," and most of the "Challenger" Reports. The library is so chosen as to cover the whole field of zoology in a general way, and to be of special service in the study of several groups which are particularly well represented in the Museum.

BOTANICAL LABORATORY

This laboratory is located on the second floor of Natural Science Hall, and is in direct communication with the herbarium room. It is supplied with heavy oak, slate-topped tables, furnished with drawers and cases for the instruments used in microscopic work, and is arranged to accommodate thirty students at one time. Thirty compound microscopes, with necessary accessories, section-cutters, etc., are at the disposal of the students.

Connected with the main laboratory are private laboratories for students pursuing special lines of investigation. Two of these are furnished with special microscopes, a photomicrographic camera, and apparatus for investigation in vegetable physiology.

A fine stereopticon with hundreds of slides furnishes the material basis for Monday evening lectures. The laboratories are well lighted and in every way adapted to satisfactory work.

LABORATORIES OF GEOLOGY, PETROLOGY, AND PALEONTOLOGY

The equipment of the department embraces:

1. The laboratory collections, including:
   - a. An extensive collection of American and European fossils, illustrating the history and development of life from the earliest geologic ages to the present time.
   - b. Several hundred mineral specimens selected and arranged to illustrate the economic geological resources of the United States, including:
     - (1). The metalliferous products, such as the various ores of gold, silver, copper, iron, etc., and their modes of occurrence.
     - (2). The non-metalliferous products, such as coal, building materials, gypsum, etc.
   - c. A collection of rock-making minerals.
   - d. A collection of rock specimens illustrating the mineralogical composition, structure, mode of occurrence, and classification of rocks.
   - e. A large number of sections of rocks, minerals, and fossils for microscopic study in connection with the work in petrology and paleontology.

2. A series of topographical and geological maps and charts, published by the United States Geological Survey, the various state surveys, and the surveys of foreign countries; geological and physiographical models; more than a thousand lantern slides, covering every phase of geology which can be illustrated in this way; several hundred photographs of physiographic and geologic phenomena.

3. A lithological lathe for making microscopic and other sections of rocks, minerals, and fossils.

4. A number of petrographical microscopes of the most approved design; two Joly balances for specific gravity determinations; Mohs's scale of hardness, etc.

5. A complete photographic outfit, including a large photomicrographic camera.

6. A large series of negatives from which the students make prints to illustrate their permanent notebooks.

7. Equipment for determinative mineralogy.

8. A collection of crystal models, natural crystals, and crystal sections to illustrate the work in crystallography.

9. The library of the department contains over 1,000 bound volumes and about 1,000 catalogued pamphlets. In addition to the standard works on geology and related subjects, the library contains the publications of the United States Geological Survey, the reports of the various state surveys, and a number of geological publications of foreign governments.

10. Geological phenomena illustrated within easy reach of Iowa City.

The surrounding neighborhood affords many instructive examples of phenomena of interest to the student of geology. At the same time it offers unexcelled opportunities for field work in mapping, making geological sections, tracing strata from one exposure to another, and making paleontological collections. The Pleistocene deposits are of especial interest.

The boulders of the drift afford an opportunity for a study of several types of crystalline rocks. The available material is not only sufficient to illustrate the ordinary undergraduate courses in geology, but advanced students will find enough to occupy their time with profit for a number of years.

THE LABORATORIES OF THE COLLEGES OF MEDICINE

The pathological and bacteriological laboratory is located on the first floor of the Hall of Liberal Arts. It is thoroughly equipped with new microscopes of the most modern type and all apparatus necessary for carrying on every form of bacteriological research. Each student is provided with a table, a microscope, and the necessary staining reagents.

The histological laboratory, situated on the first floor of the same building, is well lighted and thoroughly equipped with microscopes and all necessary apparatus for carrying on the work. The laboratory work consists of the preparation and study of microscopic slides showing the minute structure of the different tissues and organs of the body.

Physiological and otological laboratories are now being fitted up in a thorough manner with the most modern appliances.

THE CHEMICAL LABORATORIES

A three-story brick building, 105 x 150 feet on each floor, is devoted entirely to the uses of the departments of Chemistry

and Pharmacy. The lecture hall is built in amphitheater form and will accommodate nearly two hundred students, every one of whom can clearly see the lecture table and any experiment that may be performed there, even from the most distant part of the room. There is also a special lecture room for students in pharmacy. The building contains a general laboratory 100 feet in length by 27 feet in minimum breadth for the use of students in the College of Liberal Arts, and two others nearly as large for those in the Colleges of Medicine and Pharmacy; also a large laboratory for advanced students, a laboratory of determinative mineralogy, and several private laboratories which may be fitted up for various special lines of research.

There are also reading rooms containing the libraries of general and pharmaceutical chemistry, spectroscope and balance rooms, engine and dynamo rooms, dark rooms for photography, store rooms, and offices.

All the rooms of the building are well lighted, cross lights being carefully avoided. Provision has been made for perfect ventilation by means of numerous air flues. The building is heated by steam, which is also freely used for various other purposes, as for drying ovens, thermostats, distillation, etc. In no respect have the designer and the architect spared any pains to meet every reasonable demand in the construction of a building adapted, as perfectly as means would permit, to its special uses.

A storage battery and dynamo in connection with the gas engine furnish electricity to the various laboratories for electrolysis and others uses. Special facilities in the way of apparatus are provided for the study of physical chemistry.

THE PHYSICAL LABORATORY

The department of physics occupies the entire three stories of the North Building, a plain rectangular structure 60 x 90 feet.

In the basement is the large engine and dynamo room, containing a gas engine which drives a shaft twenty feet long. To this shaft are belted the dynamos, of which there are six varying in capacity from one to ten horse-power and representing several types. Here also is cable switchboard, meters, lamps and other apparatus. In the battery room are some fifty accumulators, including different types. The photometer room is supplied with a complete Kruess photometer. One basement room contains the shop of the department, with the usual metal work-

ing tools, including lathes, drill press, forge, and an outfit of bench tools. Another room is supplied with a cabinet maker's bench and a few wood working tools.

On the floor above are eight rooms. The lecture room, with seats for some seventy students, is supplied with water and gas and with wires from the dynamos and the accumulators. The windows can be easily darkened, and there are conveniences for making projections by sunlight or by electric or other artificial light. A large and well lighted room is devoted to the uses of a general laboratory, especially in the line of mechanics, and contains balances, air pumps, a cathetometer, and a number of other measuring instruments. Another large room contains much of the apparatus for electrical testing. Here also is the special physical library with the journals taken for the laboratory. Three smaller rooms are given respectively to heat, light, and magnetism, and are well equipped with apparatus. There are also two offices, for the professor in charge and the assistant professor.

By the removal of the general University library from the upper floor of this building more than five thousand square feet of floor space has been added to the accommodations of the department of physics. It is planned to make considerable changes in this story of the building, to adapt the space thoroughly to the use of the department. When these improvements are completed there will be on this floor a well appointed lecture room which will seat at least 175 people, a large general laboratory, a recitation room, an apparatus room, and several small rooms to be devoted to special uses.

The laboratory is fairly well supplied with lecture apparatus, and among the instruments of precision are many of the best and finest to be had. The equipment is especially full in mechanics, optics, and electricity. Most of the apparatus has been purchased in recent years and has been selected with great care, and some has been constructed for particular uses in this laboratory.

It may be noted that the above account of the equipment of the Physical Laboratory includes apparatus, machinery, and shop facilities for the practical work of the course in electrical engineering. The electrical work of this course is at present carried on as a part of the work of the department of physics. The electrical equipment of the new Hall of Liberal Arts and the new heating plant has materially increased the facilities for

measurements and study of electrical apparatus. This equipment is thoroughly modern and includes two large dynamos for light and power, two motors to drive fans in the heating and ventilating outfit, besides the switchboards, line construction, and other apparatus. Current from this plant is now used for lighting and power and experimental purposes in the physical laboratory. Available to the student and within easy reach are the large power stations of the local electric lighting company and the establishments of local manufacturing concerns, all furnishing examples of the best modern practice in electrical engineering.

ASTRONOMICAL OBSERVATORY

The students' Astronomical Observatory is conveniently located on the University campus. It is furnished with a five-inch equatorial telescope by Grubb of Dublin, having circles, driving clock, position micrometer, helioscope, and solar and stellar spectroscopes; a transit instrument by William Wuerdemann, of Washington; a prismatic sextant and artificial horizon by Pistor and Martins, of Berlin; clock; chronometer; chronograph, etc.

The mathematical and astronomical library comprises over twelve hundred volumes, including many rare and valuable works. The periodical literature devoted to these branches of science is also well represented.

CIVIL ENGINEERING LABORATORIES AND DRAUGHTING ROOMS

The testing laboratory contains an autographic tension tester; an automatic Reihle standard testing machine of 100,000 pounds capacity; standard abrasion cylinder for testing paving brick; grinders, lathes, and metal, stone and wood cutting saws for the preparation of specimens; Fairbanks' automatic shot-stop briquette tester of 1000 pounds capacity; briquette making machines of the S. U. I. and Sims types, using standard molds; concrete molds from 2 inches to 10 inches in diameter, and all necessary slabs, tanks, baths, thermometers, etc., for making complete physical tests of cements.

An auxiliary fire protection system has been installed in connection with the Hydraulic Laboratory of the Civil Engineering Department. For this purpose a 500 gallon per minute Worthington Duplex Fire Pump is connected in series with the fire

system of Iowa City, and discharges in a high pressure main running to hydrants in the campus. This arrangement permits of experimentation on large quantities as well as on high pressures of water. The Hydraulic Laboratory equipment proper includes tanks with standard orifices, tubes and weirs for free and submerged flow, hook gauges, stop watch, water-meters of various kinds, including direct, inferential and venturi, scales, impulse wheels, ejectors, pressure gauges, and other necessary appliances for demonstrating hydraulic principles; also a Price's pnuematic current meter for field gaugings.

The draughting rooms are at present located on the first floor of the Civil Engineering building and are well lighted, and equipped with models for drawing and descriptive geometry, and other necessary appliances.

The department is provided with a field equipment ample to permit full and complete practice in the different branches of plane surveying; this equipment consists of a vernier compass, a railroad compass, a solar compass, levels and transits, with stadia, gradienter, and Saegmuellar solar attachment; also a plane table of the latest approved form, with best telescopic alidade and all necessary attachments, together with all the rods, flags, chains, tapes, etc., that are necessary to equip fully the various classes and divisions in surveying.

The engineering library consists of over 600 volumes of the standard works on the various engineering subjects. These books are selected from and are a part of the general library, but are arranged in a convenient room adjacent to the drawing rooms, and are freely used by the engineering students. Among the engineering journals are: *Engineering News*, *Engineering* (London), *Engineering Record*, *Municipal Engineer*, *Engineering Magazine*, *Yale Scientific Monthly*, *Engineering and Mining Journal*, *Street Railway Review*, *Railway and Engineering Review*, *Canadian Engineer*, *Compressed Air*, *American Engineer*, *American Architect*, *Journal Western Engineering Society*, *Science and Industry*, *Brick*, *The Clay Worker*, *Technology Review*, *Technograph*, *Journal of the Franklin Institute*, and others, many being exchanges of *The Transit*. A catalogue of the books in this library has been printed and will be sent on application.

Students in any engineering or science course are eligible for membership in the Engineering Society. This Society

meets each week, and papers upon engineering or scientific subjects are prepared and read by the students.

An engineering journal (*The Transit*) is published annually by the University. It is edited by the members of the Engineering Society, and contains the results of original research in engineering and scientific problems by undergraduate students and alumni.

NEW ENGINEERING EQUIPMENT

Besides the construction of the auxiliary fire protection system in connection with the Hydraulic Laboratory, there has also been installed a machine shop containing a planer, milling machine, shaper, six lathes, the largest having a normal swing of 18 inches, drill press, grinder, polishing head, metal and stone cutting band saws, circular saw, and a full complement of finer tools and instruments, vernier calipers, micrometer gauges, scales, etc.

During the year 1902-1903 the engineering equipment of the University will be very materially increased. The completion of the new heating plant and Hall of Liberal Arts will make available West Building for the purposes of laboratories, shops, and lecture and recitation rooms to supplement the space now occupied in the ground, first, and second floors of the Hall of Physics and the Civil Engineering building. High pressure steam for power, to supplement the day current from the dynamos at the new heating and power plant will be available at all times, either from the high pressure main of the new heating system or from the boilers of the heating plant now located in the basement of West Building.

NATURAL HISTORY COLLECTIONS

GEOLOGICAL COLLECTIONS

1. A large series of building stones, fossils, earths, etc., collected chiefly in the prosecution of the state geological surveys between the years 1856 and 1870. These collections are constantly increasing by contributions from various sources.

2. The Calvin collection of American and European fossils.

3. Mineralogical collections embracing the metalliferous, non-metalliferous, and rock-making minerals.

4. The petrological collection includes several hundred rock-specimens illustrating the various types of igneous and sedimentary rocks, their mineralogical composition and structural features.

5. A collection of cretaceous cycads from the Dakota sandstone of the Black Hills.

6. Recent extensive collections illustrating the cretaceous faunas and economic geology of the Black Hills.

7. A collection illustrating general economic geology.

A beautifully preserved skeleton of a mosasaur (*Platecarpus*) has lately been added to the geological collections through the generosity of the Davenport Alumni Association.

During the year many important additions have been made to the collections of the department. Of these, by far the larger part came as gifts from friends of the University, but some additions were made by purchase. The following list includes a number of the more important donors and their gifts:

Mr. Geo. DeSellem, Iowa City; collection of ores and minerals from the Joplin district of Missouri.

The Vacuum Oil Company of Rochester, N. Y.; petroleum collection, including samples of crude petroleum and the various refined oils and waxes from the eastern oil fields.

Mr. R. H. Mulock, S. U. I.; copper ores from the Lake Superior region.

The Illinois Steel Company, (Milwaukee branch); iron ores and specimens of iron and steel of various grades.

The Canada Corundum Company, Toronto; collection of corundum ores.

Mr. F. W. Paschal, Joplin, Mo.; collection of zinc and lead ores and other minerals.

Professor A. B. Willmott; iron ores and rock specimens from the Lake Superior region of Ontario.

Ontario Bureau of Mines, Toronto; ores of gold, copper, nickel, etc., and copper-nickel and nickel-copper matte.

Imperial Oil Company, Sarnia, Ont.; collection of crude petroleum and petroleum products from the Ontario oil fields.

Picher Lead Company, Joplin, Mo.; specimens illustrating the manufacture of sublimed white lead.

Iowa Paint Manufacturing Company, Fort Dodge; collection of mineral paints.

Central Lead Company, Flat River, Mo.; disseminated lead ores and specimens to illustrate the smelting and refining of lead.

Hon. Frank Springer, East Las Vegas, New Mexico; slab of *Uintacrinus socialis*, Grinnell, showing 37 distinct calyces and the intricate maze of tangled arms.

The Standard Oil Company; specimens of crude and refined oil from Kansas.

The Heywood Syndicate, Beaumont, Texas; crude oils from Texas and Louisana.

Idaho, Michigan, Missouri, Minnesota, Montana, and Oregon; specimens from their exhibits at the Pan-American Exposition.

Professor N. H. Winchell; rock specimens from Minnesota.

Dr. Otto Kuntze, Iowa City; specimens of bauxite and other minerals.

Dr. Otto Kuntze, members of the University and citizens of Iowa City; a fine specimen of *Ichthyosaurus planactus*, from the Lias of Germany.

HERBARIUM

The herbarium is located in two rooms on the second floor of the Natural Science Building. It contains:

1. A very large and constantly increasing collection of fungi, both parasitic and saprophytic, from all parts of North and Central America. To be classed here is also a large collection of the myxomycetes from all parts of the world.

2. A large collection of ferns and mosses from both hemispheres, including an especially complete series from tropical America.

3. A collection of lichens, representing most of the species of the United States.

4. A collection of many thousand flowering plants, representing very fully the flora of North America, and especially rich in Central American and European forms. The number of plants in the herbarium exceeds 200,000.

5. A collection of seeds and dry fruits, including cones, representing the flora of North America chiefly but containing also much material from the tropics.

6. A collection of the principal woods of the United States.

7. A collection of economic plant products, including plant-fibers, *materia medica*, etc.

The herbarium collections, thanks to friends and collectors in various parts of the world, are steadily increasing in extent and value. It is hoped that private collectors will hereafter as heretofore find the University a proper place for the deposit and care of collections of plants.

Botanical field work has been conducted by representatives of the department in various parts of the state and country. Chief among the expeditions was that of Misses Hattie M. Clearman and Lucy M. Cavanagh to Idaho and Montana. Material additions were also made to the collections in the herbarium by the Okoboji Summer School of Botany conducted for the department of botany by the curator.

Special thanks for herbarium material are due to J. M. Holzinger, J. E. Cameron, Hattie M. Clearman, Lucy M. Cavanagh, C. W. Irish, Lieutenant George S. Gibbs, G. B. Rigg, Field Columbian Museum, C. M. Wyrick, W. Boehm, Dr. Edward Rosenstock, Fred. Reppert, L. H. Pammel, A. F. Ewers, J. J. Lambert, F. H. Potter, R. I. Cratty.

A constantly increasing library of systematic botanical literature is available to students carrying on special investigations in the herbarium.

MUSEUM OF NATURAL HISTORY

The Museum of Natural History has attained a rank second to none in the universities of the West and is daily becoming more valuable through donations of material by friends of the University.

By the generosity of the collector the Hornaday collection of mammals and birds has become the property of the University. This collection contains many rare forms of mammals and birds, and is particularly rich in typical exotic forms from India and Australia.

Mr. D. H. Talbot, of Sioux City, has donated to the University his extensive collection of natural history specimens and minerals. This collection contains many thousand specimens, being especially rich in mammals, birds, and anatomical preparations.

During the last twelve years expeditions for zoological explorations in the interest of the University have visited the following regions: Bahama Islands, Bay of Fundy, Rocky Mountain region, Pacific coast, Alaska, mountains of Tennessee, the Winnipeg country, Lake Athabasca, Great Slave Lake, the Arctic coast, Siberia, Cuba, Florida Keys, Atlantic coast, British West Indies, and the Bay of Naples.

More than half of the natural history collection is included in the *reserve series*, which has been arranged and labeled with the intention of making the material of the utmost practical use to students of natural history.

A library of reference for the use of students of zoology is placed on the museum floor, and a free use of all the material in the various collections is encouraged, for which purpose a cheerful and convenient study room has been provided for the use of students and specialists.

ZOOLOGICAL COLLECTIONS

1. MAMMALS—A large series of mounted specimens is now on exhibition, the great majority being rare and valuable foreign species, including a series of marsupials which surpasses anything of the kind west of the Alleghanies.

Besides the Hornaday collection, the museum contains a large number of native mammals, about forty specimens being from the Pacific coast. A good series of the larger mammals of North America has been secured through the kindness of Mr. D. H. Talbot, and the efforts of Dr. Frank Russell, who returned from the far north with an exceptionally fine series of the larger mammals of that region, including five good specimens of the musk ox.

2. BIRDS—The ornithological material in the museum now embraces about 11,000 specimens, about 1,000 of which are exhibited in the mounted series, the remainder being included in the study series for the use of students and specialists.

Besides a large collection of native birds, containing nearly all the species found in Iowa, the following collections are noteworthy:

The Hornaday collection of birds, containing one hundred and twenty-five specimens, nearly all of which are exotics, and many, such as the ostrich and the emu, of great value.

The Bond collection of birds of Wyoming, donated, together with a large collection of Iowa birds, by Mr. Frank Bond, of Cheyenne, Wyoming.

The Harrison collection of British game birds and birds of prey, a large and valuable series, donated by John Harrison, Esq., of England.

The Talbot collection of American birds, embracing thousands of specimens, mostly from the Mississippi valley.

A collection of 500 birds from the N. W. Provinces of British America, made by the Curator, Dr. Frank Russell, and Professor A. G. Smith.

A collection of about 600 specimens of birds from the Winnipeg country, Great Slave Lake, Athabasca Lake, the Mackenzie River, and the Arctic coast, made by Dr. Frank Russell.

The Curator has donated his study series of over 800 bird skins from Central America and the Bahama Islands.

3. REPTILES—The alcoholic collection of reptiles has received many important additions, among which may be men-

tioned a number of specimens from India, donated by Rev. A. Loughridge, and many native specimens presented by students. Ex-regent B. F. Osborn has donated his large collection of alcoholic specimens, which consists principally of reptiles, thus nearly doubling the series of these forms.

4. FISHES—Professor B. Shimek has presented the Museum with his entire collection of fresh water fishes, of which the Museum now has several hundred specimens, besides a number of marine forms.

A collection of 135 species of the fresh water fishes of Central and western North American has been donated to the University by the United States Fish Commission.

5. INSECTS—Assistant Professor Wickham is now engaged in assorting a large series of the coleoptera and lepidoptera of North America, which he has donated. All of the foreign coleoptera formerly in his large collection are now the property of the Museum.

6. MARINE INVERTEBRATES—A collection consisting of several thousand specimens of crustaceans, mollusks, star fishes, corals, sponges, etc., has been supplemented by a valuable series consisting of several hundred alcoholic specimens, many of which are the gift of the United States Fish Commission.

The alcoholic collection has been enlarged by marine forms collected during two expeditions to the Bahamas, Cuba, and the Florida Keys, and thousands of specimens have been added by collections made in the Bay of Fundy by Professors Calvin and Nutting.

A carload of marine specimens was secured by the Bahama expedition in 1893. This collection contains a large number of deep-water forms, thus giving the University special advantages in the matter of marine materials for exhibition and study.

A valuable series of marine forms of the more fragile and delicate kinds, such as medusæ, sea-anemones, etc., has been secured from the *Stazione Zoologica* at Naples, where the most superb preparations of these beautiful forms are made. These are supplemented by a number of gelatine models of medusæ, hydroids, etc., imported from Germany.

7. TERRESTRIAL AND FRESH WATER MOLLUSCA — The Shimek collection of land and fresh water shells, embracing

nearly all the species known to occur in Iowa, together with many exotic species.

8. OSTEOLOGICAL PREPARATIONS—A series of mounted skeletons, illustrating the osteology of typical series of vertebrates, is of the greatest value to students of comparative anatomy and zoology. The skeleton of a large whale (*Balaena biscayensis*) was secured in 1898.

ETHNOLOGICAL COLLECTIONS

There is an abundance of ethnological material in the Museum, illustrating the handiwork of the Mound Builders, Pueblo Indians, Zunis, Moquis, Acomas, Mojaves, Crees, Dog Ribs, Metis, Kosmolliks, Piegans, Tchukchees, and Navajos, together with skulls and other remains of the ancient and modern inhabitants of America.

Mr. D. H. Talbot of Sioux City has added very largely to this department of the Museum. Dr. Russell has been active in securing ethnological specimens illustrating the life and manufactures of the Crees, of other northern tribes of Indians, and of the Esquimaux.

Mr. H. M. Griffith of the Fifty-first Iowa Volunteers has brought from Luzon a valuable collection which he has generously donated to the Museum.

PEDAGOGICAL MUSEUM

A good beginning has been made in the collection of a pedagogical museum, in which it is designed to have material representing all phases of model school-room instruction, and also materials representing educational practices of the past.

Anyone desiring to assist in this enterprise may send such contributions as old text books, books of collateral literature, models of work executed by pupils, including examination papers, written digests, laboratory notes, drawings, work in color, designs in wood, metal, clay, paper, or paste board, photographs, plans, and descriptions of school buildings. All objects should be sent to "The Educational Museum," and all correspondence addressed to the Professor of Education. Prompt acknowledgement will be made of all favors received.

MUSEUM OF SCULPTURE CASTS

In connection with the department of Classical Archæology a museum of plaster casts of Greek and Roman sculpture has been established. Full casts have been obtained of the Venus from Melos, and of four other well known statues; a representative series of reliefs illustrate the remains of the art of Phidias; the collection also includes several busts, three from statues of the Greek gods, and others from early portraits of Greek authors. The class graduating from the College of Liberal Arts in 1901 added to the collection a cast of the statue of Sophocles, which is preserved in the Lateran Museum at Rome; this cast is exhibited in the main hall of the Hall of Liberal Arts.

ITEMS OF GENERAL INTEREST

UNIVERSITY PUBLICATIONS

Natural History Bulletin—The laboratories of natural history inaugurated in 1888 the publication of bulletins for the purpose of preserving a record of the work prosecuted along the lines of botany, geology, and zoology. Four volumes have thus far appeared in sixteen numbers, and the fifth volume is in process of publication. The numbers have a large circulation and are sent *gratis* to all correspondents from whom the University receives an equivalent, either in publications or in material. To others the price is 50 cents a number.

The Transit is an engineering journal published annually by the University. It is edited by the members of the Engineering Society, and contains the results of original research in engineering problems by alumni and undergraduate students. Seven volumes have appeared, the first two containing two numbers each.

The Law Bulletin is published at irregular intervals and has been issued for 10 years past. It is devoted to the discussion of legal topics taken up in the College of Law.

The Bulletin of the Homœopathic Medical College has been published since 1895. Eight numbers have appeared, the last being No. 2 of Vol. II.

The University of Iowa Studies in Psychology is a biennial publication devoted to experimental psychology. It was begun in 1897. Three volumes have been published.

The State University of Iowa Studies in Sociology, Economics, Politics, and History—Volumes I and II of this series, containing respectively 296 and 150 pages, have already appeared and will be followed by others.

Provision has been made for the publication of bulletins of Physical Science, Pedagogy, and Linguistic Science.

In ordering any of the above publications address the Secretary of the University.

STUDENT PUBLICATIONS

The Daily Iowan.

The Hawkeye—A University annual published by the junior class.

LITERARY AND SCIENTIFIC SOCIETIES

The literary and scientific societies maintained by the faculty and students of the University afford an important means of general culture, scientific research, and literary and forensic training, and thus form a valuable element as well as an attractive feature in University life.

Of those conducted by the faculty the Baconian has for its object discussion of scientific questions; the Graduate Club is devoted to the interests of the Graduate College; the Political Science Club discusses questions in history, politics, economics, law, education, and ethics; the Whitney Society is devoted to the field of language and literature and the methods of teaching these subjects; the Greek Club consists of instructors and graduate students working in Greek philology; the English Club is an organization of members of the department of English and graduate students in English; the Edda is devoted to the interests of Scandinavian languages and literature; the Philosophical Club meets monthly for the discussion of problems in philosophy, psychology, logic, ethics, and æsthetics; the Cercle Français has social gatherings for practice in colloquial French, and at its meetings papers are read in English or in French.

The Phi Beta Kappa Society elects to membership, on the basis of high scholarship, a certain number from the graduating class who have completed the classical or philosophical course.

The Sigma Xi is organized to encourage original research in science, and elects to membership from the senior class such persons as give promise of becoming investigators in some department of science.

The Engineering Society, the Hammond Law Senate, the Middletonian Society, the Hahnemannian Society, and the E. L. B. Club, are organizations of students in the professional colleges.

Among the purely literary societies are the Tabard, Polygon, and Ivy Lane. The Irving Institute, the Zetagathian

ITEMS OF GENERAL INTEREST

UNIVERSITY PUBLICATIONS

Natural History Bulletin—The laboratories of natural history inaugurated in 1888 the publication of bulletins for the purpose of preserving a record of the work prosecuted along the lines of botany, geology, and zoology. Four volumes have thus far appeared in sixteen numbers, and the fifth volume is in process of publication. The numbers have a large circulation and are sent *gratis* to all correspondents from whom the University receives an equivalent, either in publications or in material. To others the price is 50 cents a number.

The Transit is an engineering journal published annually by the University. It is edited by the members of the Engineering Society, and contains the results of original research in engineering problems by alumni and undergraduate students. Seven volumes have appeared, the first two containing two numbers each.

The Law Bulletin is published at irregular intervals and has been issued for 10 years past. It is devoted to the discussion of legal topics taken up in the College of Law.

The Bulletin of the Homœopathic Medical College has been published since 1895. Eight numbers have appeared, the last being No. 2 of Vol. II.

The University of Iowa Studies in Psychology is a biennial publication devoted to experimental psychology. It was begun in 1897. Three volumes have been published.

The State University of Iowa Studies in Sociology, Economics, Politics, and History—Volumes I and II of this series, containing respectively 296 and 150 pages, have already appeared and will be followed by others.

Provision has been made for the publication of bulletins of Physical Science, Pedagogy, and Linguistic Science.

In ordering any of the above publications address the Secretary of the University.

STUDENT PUBLICATIONS

The Daily Iowan.

The Hawkeye—A University annual published by the junior class.

LITERARY AND SCIENTIFIC SOCIETIES

The literary and scientific societies maintained by the faculty and students of the University afford an important means of general culture, scientific research, and literary and forensic training, and thus form a valuable element as well as an attractive feature in University life.

Of those conducted by the faculty the Baconian has for its object discussion of scientific questions; the Graduate Club is devoted to the interests of the Graduate College; the Political Science Club discusses questions in history, politics, economics, law, education, and ethics; the Whitney Society is devoted to the field of language and literature and the methods of teaching these subjects; the Greek Club consists of instructors and graduate students working in Greek philology; the English Club is an organization of members of the department of English and graduate students in English; the Edda is devoted to the interests of Scandinavian languages and literature; the Philosophical Club meets monthly for the discussion of problems in philosophy, psychology, logic, ethics, and æsthetics; the Cercle Français has social gatherings for practice in colloquial French, and at its meetings papers are read in English or in French.

The Phi Beta Kappa Society elects to membership, on the basis of high scholarship, a certain number from the graduating class who have completed the classical or philosophical course.

The Sigma Xi is organized to encourage original research in science, and elects to membership from the senior class such persons as give promise of becoming investigators in some department of science.

The Engineering Society, the Hammond Law Senate, the Middletonian Society, the Hahnemannian Society, and the E. L. B. Club, are organizations of students in the professional colleges.

Among the purely literary societies are the Tabard, Polygon, and Ivy Lane. The Irving Institute, the Zetagathian

Society, the Philomathean Society for young men; and the Hesperian Society, the Erodelphian Society and the Octave Thanet Society for young women hold weekly meetings for improvement in debate, oratory, writing, and declamation.

MUSICAL ORGANIZATIONS

The University Glee Club, the Minstrels, the Military Band, the Mandolin Club, etc., afford opportunity for musical training and furnish entertainments.

THE LECTURE BUREAU

The Zetagathian and Irving Societies unite to form a lecture bureau which furnishes a series of literary and musical entertainments.

THE ORATORICAL LEAGUE

This association is made up of members of the Zetagathian, Irving, and Philomathean Societies, and is a member of the Northern Oratorical League, consisting of Oberlin College, Northwestern University, and the Universities of Wisconsin, Michigan, Chicago, and Iowa.

THE DEBATING LEAGUE

This organization, composed of the Zetagathian and Irving Societies, carries on systematic training in debating through private practice and public contests. It has had public debates with the Universities of Chicago, Minnesota, and Wisconsin, and will meet with the two latter this year.

CHRISTIAN ASSOCIATIONS

The Young Men's and Young Women's Christian Associations are the center of the religious life of the University and active factors in all forms of moral and Christian work properly within the scope of such organizations. All students of good moral character are invited to membership either active or associate. Through the exertions of these associations Close Hall has been erected, mainly from funds contributed by the faculty, students, and alumni of the University and the citizens of Iowa City. It is a spacious and convenient building, containing a large assembly hall, gymnasium, reading rooms, re-

ception rooms, and bath rooms. It is extensively used for the meetings of the associations, as well as for the social, literary, and class gatherings of the students.

Through the generosity of Hon. T. S. Parvin the social room of the Y. W. C. A. has been finely fitted out with furniture, cabinet, and pictures as a memorial to his wife and daughter. A similar room for the Y. M. C. A. has been suitably furnished by Mr. W. D. Cannon, Jr., of Iowa City.

The Associations strive to be useful to all students in every feasible way. Members meet new students at the trains, aid them in securing suitable rooms and boarding places, hold receptions at the opening of the year and on various occasions, maintain an employment bureau, and issue for free distribution a student's handbook containing information of interest and value to the whole student body. The General Secretary is glad to be helpful to students on all occasions.

MEANS OF MORAL AND RELIGIOUS CULTURE

Besides the opportunities offered by the Christian Associations and the positive influence exerted by them, the churches of the city, in which the members of the faculty are a large factor, take a deep interest in the students of the University and heartily welcome them to their public services and to a share in their religious activities and social life. The churches of the city are the Baptist, Christian, Congregational, German and English Lutheran, Methodist Episcopal, Presbyterian, Protestant Episcopal, Roman Catholic, Unitarian, and Church of God.

STUDENTS AND CIVIL AUTHORITIES

The relations of students to all laws and to city ordinances is precisely the same as that of other residents of the city. The University grounds are as completely under the jurisdiction of the civil authorities as any other part of the city.

HOSPITALS

The two hospitals connected with the University afford the best care and treatment for students seriously ill. Provision for free beds for students is commended to the attention of generous friends of the University.

THE DEAN OF WOMEN

Special provision is made for the comfort and welfare of the young women of the University by the appointment of a Dean of Women, who is always ready to help or advise any woman student who may need such assistance. She will recommend boarding and lodging places so far as she is able, see that students who are ill while away from home are put under proper care, assist, as far as possible, young women who wish to earn their way through college, correspond with parents and guardians who desire to make inquiries regarding their daughters or wards, take an interest in the women's organizations and be ready to make such suggestions as may seem to her to be for the good of all.

PHYSICAL TRAINING AND ATHLETICS

The University authorities encourage physical training as acquired in the gymnasium, in military training and in the exercises and sports on the athletic field, but only in such amount and of such character as is compatible with, and promotive of, the higher objects of the University. Intercollegiate contests are allowed and are held with the leading colleges and universities of the Middle West, but under conditions as to membership, organization of teams, and leave of absence which are determined by the Athletic Board.

The above-named Athletic Board consists of six students, five members of the faculty, and two members from the alumni of the University. The general control and supervision of all athletics are in the hands of this Board.

The University is a member of the "College Conference," comprising the Universities of Chicago, Illinois, Indiana, Iowa, Michigan, Minnesota, and Wisconsin, together with the Northwestern and Purdue Universities. The Athletic Board requires a strict compliance with the "Conference Rules," a copy of which appears in the Announcement of the College of Liberal Arts.

The athletic field contains about ten acres and is in the immediate vicinity of the University grounds. It affords room for a two-fifths mile running track, a foot ball gridiron, and a base ball diamond entirely separate from one another. During the year over two thousand dollars have been spent in improving

this field, and it is the intention to spend as much more during the coming year.

In connection with Close Hall is a small gymnasium, equipped with suitable apparatus, lockers, baths, etc. This is under the direction of competent instructors, and classes are organized both for young men and young women.

EXPENSES

There are no dormitories and no commons connected with the University. Boarding and lodging in private houses can be obtained for from $3 to $5 a week. Clubs are also formed in which the cost of living is from $1.50 to $2.50 a week. Room rent varies from 50 cents to $1.50 a week for each student.

Tuition is free in the Graduate College. In the College of Liberal Arts it is $25 per annum, payable $12.50 at the beginning of each semester. Tuition may be remitted in the College of Liberal Arts in the case of students who bring a certificate signed by three county officers to the effect that the applicant is in pecuniary need and is deserving of assistance. Blank forms for such certificates may be obtained by addressing the President of the University.

For students in the combined courses the fees are $25 a year until the work in the professional colleges begins. Then students in the combined course in law, in medicine, or in homœopathic medicine pay $75 a year.

Each candidate for graduation will be required to pay a fee of $5.

A fee of $10 is required of all candidates for the Master's degree, for the degree of Civil Engineer, or for the degree of Doctor of Philosophy.

Ample facilities are afforded in the city for instruction in bookkeeping, stenography, and typewriting, in studies preparatory to the University, and in music, by the High School, the Iowa City Commercial College, Miss Irish, the Academy, the Iowa City Conservatory of Music, and by private instructors.

THE A. WHITNEY CARR FREE SCHOLARSHIP FUND

A number of free scholarships have been endowed by the generous donation of Mr. A. Whitney Carr, of Jordan, New York, whose beneficent purpose is fully expressed in the terms of his proposition, namely:

"I propose to give and donate to the state of Iowa, to be held in trust for and applied to the use of the State University of Iowa as hereinafter provided, fifty thousand dollars as a fund to be held in perpetuity for the creation of free scholarships in the Collegiate Department of the University for the benefit of poor and worthy young men and women who are unable to educate themselves without aid, the interest alone to be used for this purpose, the principal to be kept intact.

"I also consent that in case suitable persons for all the scholarships are not found in any year, then the amount of such unused scholarships may be loaned on interest to any worthy persons wishing to take a post-graduate course in this University, such loans, when repaid, to be used as originally intended."

In awarding the A. Whitney Carr scholarships it is temporarily provided:

I. No student shall receive aid from this fund until he has attended the University at least one year.

II. Scholarships shall be awarded for one year only, but an award may be made annually to the same person, subject to the limitations of Provision III.

III. The sum paid any student out of the income of the A. Whitney Carr fund shall not be less than $100 a year, and no person shall hold a scholraship for more than three years.

IV. No student whose average standing during the period of his residence at the University is less than 7½ shall be entitled to share in this benefaction.

V. The President of the University and members of the instructing staff shall annually recommend persons entitled to consideration in accordance with the purpose of the donor, and from the list so recommended the President and two members of the Faculty of the College of Liberal Arts shall select the persons to whom scholarships can be awarded.

SELF-SUPPORT

The Y. M. C. A. and Y. W. C. A. conduct a free labor bureau, which is at the service of students. Iowa City is a town of 8,000 inhabitants, whose citizens are friendly to the University and take pleasure in affording to deserving students the opportunity to earn their necessary expenses. It rarely happens that a student fails to secure steady employment of some kind, if necessary. During the past year the demand for student help has been greater than the supply.

PRIZES

PICKARD PRIZE—A prize of $20 was offered last year by Dr. J. L. Pickard for the encouragement of extempore speaking to the student in Political Science who was awarded first rank in competitive extempore debate. A prize of the same value is again offered for this year. The competitive debate will take place early in June.

LOWDEN PRIZES—Frank O. Lowden, Esq., of the class of 1885, offers prizes of the value of $25 each for excellence in Latin, in Greek, in Botany, and in Geology, and $50 in Mathematics.

MAYER PRIZE—Mr. Max Mayer of Iowa City has established a prize of the annual value of $25 for excellence in athletics. The details as to the special matters of competition and the methods of awarding the prize will be publicly announced at the beginning of the year 1902-1903. This prize is open to students of all colleges of the University.

THE LOCAL ALUMNI ASSOCIATION PRIZE—An annual prize of free tuition, $25, is offered to the freshman from Johnson county who passes the best special examination set for this purpose.

LARRABEE PRIZES—Mrs. William Larrabee offers three prizes of $25 each for excellence in scholarship, in Botany, in Geology, and in Zoology.

OLD ENGLISH PRIZE—The Early English Text Society of London offers one of its texts as a prize for excellence in Old English.

A citizen of Iowa City offers a copy of Gray's Field Manual for the best work in the Botany of the spring term.

Mr. Lowden has given $3,000 as an endowment to the Northern Oratorical League. As this University is a member of the League, students are invited to compete and share in the benefits of this endowment.

THE COLLEGE OF LIBERAL ARTS

COLLEGE OF LIBERAL ARTS

FACULTY AND INSTRUCTORS

GEORGE EDWIN MACLEAN, B. A., 1871; M. A., 1874, Williams; B. D., 1877, Yale; PH. D., 1883, Leipzig; LL. D., 1895, Williams.

President, 1899.* 603 College St. (Old Capitol)

AMOS NOYES CURRIER, B. A., 1856; M. A., 1859, Dartmouth; LL. D., 1893, Des Moines.

Professor of Latin Language and Literature, and Dean of the College of Liberal Arts, 1867. 32 Bloomington St. (108 Liberal Arts)

SAMUEL CALVIN, M. A., 1874, Cornell; PH. D., 1888, Lenox.

Professor of Geology, 1874. 522 N. Clinton St. (Science Hall, first floor)

THOMAS HUSTON MACBRIDE, B. A., 1869; M. A., 1873, Monmouth; PH. D., 1895, Lenox.

Professor of Botany, 1878. 728 Washington St. (Science Hall, second floor)

LAUNCELOT WINCHESTER ANDREWS, B. PH., 1875, Yale; M. A., PH. D., 1882, Goettingen.

Professor of Chemistry, 1885. 229 S. Johnson St. (Chemical Laboratory)

GEORGE THOMAS WHITE PATRICK, B. A., 1878, Iowa; B. D., 1885, Yale; PH. D., 1888, Johns Hopkins.

Professor of Philosophy, 1887. 704 N. Dubuque St. (209 Liberal Arts)

CHARLES BUNDY WILSON, B. A., 1884; M. A., 1886, Cornell University.

Professor of German Language and Literature, and Secretary of the University Senate, 1888. 919 E. College St. (101 Liberal Arts)

ANDREW ANDERSON VEBLEN, B. A., 1877; M. A., 1880, Carleton College.

Professor of Physics, 1883. 707 N. Dubuque St. (Hall of Physics)

LAENAS GIFFORD WELD, B. S., 1883; M. A., 1885, Iowa.

Professor of Mathematics, and Dean of the Graduate College, 1886. 612 N. Dubuque St. (113 Liberal Arts)

CHARLES CLEVELAND NUTTING, B. A., 1880; M. A., 1882, Blackburn University.

Professor of Zoology, and Curator of the Museum of Natural History, 1886. 922 E. Washington St. (Science Hall, third floor)

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*Date following title indicates year of appointment to service in the University. The names are arranged in groups according to seniority of appointment to present rank.

ISAAC ALTHAUS LOOS, B. A., 1876; M. A., 1879, Otterbein; B. D., 1881, Yale; D. C. L., 1898, Penn Coll.

Professor of Sociology and Political Philosophy, and Director of the School of Political and Social Science, 1889.
22 E. Bloomington St. (205 Liberal Arts)

WILLIAM CRAIG WILCOX, B. A., 1888; M. A., 1891, University of Rochester.

Professor of History, and Secretary of the Faculty of the College of Liberal Arts, 1894. 629 N. Dubuque St. (222 Liberal Arts)

FREDERIC C. L. VAN STEENDEREN, M. A., 1893, Penn Coll.

Professor of French Language and Literature, 1893.
309 Church St. (120 Liberal Arts)

ALFRED VARLEY SIMS, C. E., 1888, Pennsylvania.

Professor of Civil Engineering, 1895. Bloom Terrace. (South Hall)

GILBERT LOGAN HOUSER, B. S., 1891; M. S., 1892, Iowa; PH. D., 1901, Johns Hopkins.

Professor of Animal Morphology and Physiology, 1892.
422 Iowa Ave. (Science Hall, first floor)

BENJAMIN FRANKLIN SHAMBAUGH, B. PH., 1892; M. A., 1893, Iowa; PH. D., 1895, Pennsylvania.

Professor of Political Science, 1895.
219 N. Clinton St. (201 Liberal Arts)

CLARK FISHER ANSLEY, B. A., 1890, Nebraska.

Professor of English, 1899. 1041 Woodlawn. (227 Liberal Arts)

LEONA ANGELINE CALL, B. A., 1880; M. A., 1883, Iowa.

Professor of Greek Language and Literature, 1885.
21 N. Dubuque St. (106 Liberal Arts)

HENRY EVARTS GORDON, B. A., 1879; M. A., 1901, Amherst.

Professor of Public Speaking, 1900. 419 Iowa Ave. (312 Liberal Arts)

ARTHUR FAIRBANKS, B. A., 1886, Dartmouth; PH. D., 1890, Freiburg, i. B.

Professor of Greek Literature and Archæology, and Secretary of the Graduate Faculty; University Editor, 1900.
7 E. Bloomington St. (310 Liberal Arts)

ALDEN ARTHUR KNIPE, M. D., 1896, Pennsylvania.

Director of Physical Culture, 1900. (5a Liberal Arts)

FREDERICK ELMER BOLTON, B. S., 1893; M. S., 1896, Wisconsin; PH. D., 1898, Clark.

Professor of the Science and Art of Education, 1900.
1019 College St. (217 Liberal Arts)

FIRST LIEUTENANT GEORGE RITTER BURNETT, U. S. A.

Professor of Military Science and Tactics, and Commandant of the Cadet Battalion, 1901. 510 College St. (Armory)

CHARLES SCOTT MAGOWAN, C. E., 1884; M. A., 1887, Iowa.

Assistant Professor of Civil Engineering, 1886.
304 Summit St. (South Hall)

BOHUMIL SHIMEK, C. E., 1883, Iowa.
Assistant Professor of Botany, and Curator of the Herbarium, 1895. (Science Hall, second floor)

HENRY FREDERICK WICKHAM, M. S., 1894, Iowa.
Assistant Professor of Zoology, and Assistant Curator of the Museum of Natural History, 1894. 911 Iowa Ave. (Science Hall, third floor)

ARTHUR G. SMITH, B. PH., 1891; M. A., 1895, Iowa.
Assistant Professor of Mathematics, 1893. West Side. (12 Liberal Arts)

*FRANKLIN HAZEN POTTER, B. A., 1892; M. A., 1895, Colgate.
Assistant Professor of Latin, 1895. 527 N. Linn St. (111 Liberal Arts)

CARL EMIL SEASHORE, B. A., 1891, Gustavus Adolphus; PH. D., 1895, Yale.
Assistant Professor of Philosophy, 1897. 208 Fairchild St. (211 Liberal Arts)

ALICE YOUNG, B. L., 1896, Minnesota.
Assistant Professor of English, and Dean of Women, 1900. 111 N. Clinton St. (117 Liberal Arts)

FREDERIC BERNARD STURM, B. A., 1892, Michigan.
Assistant Professor of German, 1892. 423 Iowa Avenue. (7 Liberal Arts)

*WILLIAM ROLLA PATTERSON, B. Di., 1888; B. S., 1889, Iowa State Normal; B. PH., 1895, Iowa; PH. D., 1898, Pennsylvania.
Assistant Professor of Statistics and Economics, 1898. 505 Washington St. (209 Liberal Arts)

CLARENCE WILLIS EASTMAN, B. S., 1894, Worcester Polytechnic; M. A., PH. D., 1898, Leipzig.
Assistant Professor of German, 1898. 430 N. Clinton St. (8 Liberal Arts)

GEORGE T. FLOM, B. L., 1893, Wisconsin; M. A., 1894, Vanderbilt; PH. D., 1899, Columbia.
Assistant Professor in charge of Scandinavian Languages and Literatures, 1900. 124 Church St. (10 Liberal Arts)

RUSSELL D. GEORGE, M. A., 1898, McMaster University, Toronto.
Assistant Professor of Geology, 1900. 222 Ronalds St. (Hall of Science)

HARRY GRANT PLUM, B. PH., 1894; M. A., 1896, Iowa.
Assistant Professor of History, 1900. 419 N. Dubuque St. (315 Liberal Arts)

JOHN FRANKLIN BROWN, B. PH., 1889; M. A., 1895, Earlham; PH. D., 1896, Cornell.
Assistant Professor of the Science and Art of Education, and Inspector of High Schools, 1901. 19 Market St. (216 Liberal Arts)

CLEVELAND KING CHASE, B. A., 1891; M. A., 1896, Oberlin.
Assistant Professor of Latin, 1901. 225 Fairchild St. (111 Liberal Arts)

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*Absent on leave.

JOSEPH JASPER MCCONNELL, B. A., 1876; B. Di., 1878; M. A., 1880, Iowa.
Lecturer on the Science and Art of Education, 1891. Cedar Rapids

LUTHER ALBERTUS BREWER, B. A., 1883; M. A., 1886, Pennsylvania College.
Lecturer on Journalism, University Publisher, 1900. Cedar Rapids

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HERBERT C. DORCAS, B. PH., 1895, Iowa.
Instructor in Pedagogy, and University Examiner, 1895.
427 Ronalds St. (218 Liberal Arts)

LOUISE ELIZABETH HUGHES, B. PH., 1878; M. A., 1881; B. A., 1899, Iowa.
Instructor in Latin, 1896. 122 N. Capitol St. (112 Liberal Arts)

JOHN J. LAMBERT, B. Di., 1896; M. Di., 1897, Iowa State Normal; B. PH., 1899; M. S., 1901, Iowa.
Instructor in Animal Morphology and Physiology, 1898.
304 Davenport St. (Science Hall)

CARL LEOPOLD VON ENDE, B. S., 1893; M. S. 1894, Iowa; PH. D., 1899, Goettingen.
Instructor in Chemistry, 1899. 220 S. Johnson St. (Chem. Lab'y)

JOHN VAN ETTEN WESTFALL, B. S., 1895, Cornell University; PH. D., 1898, Leipzig.
Instructor in Mathematics, 1899. 127½ S. Dubuque St. (12 Liberal Arts)

SIVERT N. HAGEN, B. A., 1896, Luther College; PH. D., 1900, Johns Hopkins.
Instructor in English, 1900. 308 Summit St. (207 Liberal Arts)

CHARLES F. LORENZ, B. S., 1897; M. S., 1898, Iowa.
Instructor in Physics, 1900. 215 Ronalds St. (Hall of Physics)

STEPHEN HAYES BUSH, B. A., 1901; M. A., 1902, Harvard.
Instructor in French, 1901. 124 Church St. (120 Liberal Arts)

SAM BERKELEY SLOAN, B. A., 1899, Nebraska.
Assistant Instructor in English, 1899.
506 N. Linn St. (118 Liberal Arts)

CLYDE B. COOPER, B. A., 1897, Nebraska.
Assistant Instructor in English, 1900.
209 Bloomington St. (5 Liberal Arts)

GAYLORD D. WEEKS, B. S. in C. E., 1901, Iowa.
Assistant Instructor in Civil Engineering, 1900.
304 Summit St. (South Hall)

SIMEON E. THOMAS, B. S., 1898, Upper Iowa University; M. A., 1901, Iowa.
Assistant Instructor in Political Science, 1900.
229 Iowa Avenue. (203 Liberal Arts)

WILLIAM E. BECK, B. S., 1900, Iowa.
Assistant Instructor in Mathematics, 1900.
518 S. Clinton St. (14 Liberal Arts)

HENRY WALDGRAVE STUART, B. PH., 1895, California; PH. D., 1900, Chicago.
Assistant Instructor in Philosophy, 1901. 725 N. Linn St., (214 Liberal Arts)

GEORGE LUTHER CADY, B. A., Olivet College.
Honorary Fellow in Sociology, 1900. 25 N. Dubuque St.

JACOB E. CONNER, B. A., 1891, Iowa.
Fellow in Sociology and Political Philosophy, 1900. 229 Iowa Avenue

ALICE ANKENEY, B. A., 1897, Wells College.
Fellow in Chemistry, 1901. 21 N. Dubuque St.

HELEN M. EDDY, B. A., 1900, Iowa.
Fellow in Latin, 1901. 4 Jefferson St. (112 Liberal Arts)

FRANK HARMON GARVER, B. A., 1898, Upper Iowa University.
Fellow in History, 1901. 114 Fairchild St.

PERCIVAL HUNT, B. A., 1900, Iowa.
Fellow in English, 1900. 329 N. Dubuque St.

KIYOSHI KAWAKAMI, B. L., 1899, Tokyo Law College; B. A., 1900, Aoyama Anglo-Japanese College, Tokyo.
Fellow in Political Science, 1901. 325 S. Dubuque St.

LEE PAUL SIEG, B. S., 1900; M. S., 1901, Iowa.
Fellow in Physics, 1900. (Hall of Physics)

FRANK ALBERT STROMSTEN, B. S., 1900, Iowa.
Fellow in Animal Morphology, 1900. 1017 College St.

CHARLES ALLYN WILLIAMS, B. A., 1899; M. A., 1901, Iowa.
Fellow in German, 1901. 413 Iowa Avenue

MABEL CLARE WILLIAMS, B. PH., 1899, Iowa.
Fellow in Philosophy, 1899. 413 Iowa Avenue

MARK WAYNE WILLIAMS, B. A., 1898, Iowa.
Fellow in Psychology, 1901. 304 Davenport St.

*JAMES ELLIS GOW, B. PH., 1901, Iowa.
Scholar in Botany, 1900. 122 N. Capitol St.

JOHN GABBERT BOWMAN, B. A., 1899, Iowa.
Scholar in English, 1901. 215 Ronalds St.

HUGH STRAIGHT BUFFUM, B. A., 1901, Iowa.
Scholar in Public Speaking, 1901. 406 N. Gilbert St.

HARRY E. BURTON, B. A., 1901, Iowa.
Scholar in Mathematics, 1901. 517 N. Linn St.

MYRON C. GASTON, B. A., 1901, Tabor College.
Scholar in Greek, 1901. 121 Burlington St.

VICTORIA HRUSKA, B. A., 1901, Iowa.
Scholar in French, 1901. 114 N. Capitol St.

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*Resigned, January, 1902.

JAMES H. LEES, B. Di., 1893; M. Di., 1897, Iowa State Normal; B. A., 1901, Coe College.
Scholar in Geology, 1901. 220 E. Burlington St.

J. H. PAARMANN, B. S., 1901, Iowa.
Scholar in Zoology, 1901. 410 Ronalds St.

MARY E. POLK, B. A., 1900, Iowa.
Scholar in English, 1901. 26 Jefferson St.

GEORGE CHESTER WISE, B. PH., 1900, Iowa.
Scholar in German, 1901. 121 E. Bloomington St.

BERTHA A. WILLIAMS, B. PH., 1888, Iowa.
Assistant in French, 1900. West Side

CHARLES IRWIN LAMBERT, B. S., 1901, Iowa.
Assistant in Botany, 1900. 304 E. Davenport St.

KATHERINE PAINE, B. PH., 1889, Iowa.
Assistant in Latin, 1900. 513 Summit St. (109 Liberal Arts)

HARVEY HAYES LOCHRIDGE, B. S., 1901, Beloit.
Assistant in Chemistry, 1901. 529 Burlington St.

W. M. BOEHM.
Undergraduate Assistant in Physics, 1900.
406 S. Clinton St. (Hall of Physics)

MARY SLEIGHT EVERTS.
Undergraduate Assistant in Public Speaking, 1901. 419 N. Dubuque St.

JOHN CARVILLE.
Assistant in Geology. (Hall of Science)

RUDOLPH M. ANDERSON.
Taxidermist. 304 E. Davenport St.

STANDING COMMITTEES OF THE FACULTY OF THE COLLEGE OF LIBERAL ARTS

ADMISSION AND CLASSIFICATION: Professors Wilson, Patrick, Currier, Macbride, Call, the Registrar.

COURSES OF STUDY AND PROGRAMME: Professors Currier, Macbride, Andrews, Patrick, Weld, Loos, Sims, Ansley, Bolton.

EXECUTIVE: The President, Professors Currier, Macbride.

MILITARY: Professors Burnett, Andrews, Gordon, Nutting.

PREPARATORY SCHOOLS: Professors Brown, Calvin, Weld, Fairbanks.

LIBRARY: The President, Professors Nutting, Andrews, Shambaugh, Fairbanks.

RULES: Professors Veblen, Van Steenderen, Sims.

SUMMER SESSION: Dean in Residence, Professors Andrews, Loos, Ansley, Bolton.

CONDITIONED STUDENTS: Professors Wilcox, Houser, The University Examiner, The Dean of Women.

GENERAL PLAN

The College of Liberal Arts offers three general courses of study—Classical, Philosophical, and General Scientific—and four technical courses—Civil Engineering, Electrical Engineering, Mining Engineering, Mining and Metallurgy. The requirements and lines of work offered are set forth under Courses of Study.

REQUIREMENTS FOR ADMISSION

Applicants for admission to the freshman class in any of the courses of the College of Liberal Arts must be at least sixteen years of age, and must present satisfactory evidence of having completed the preparatory studies specified below. An examination is required of all students who do not present acceptable certificates.

It is expected that the following branches of study will be completed in the grammar school: Practical Arithmetic, Reading, Penmanship, Elementary English Grammar, Geography, Bookkeeping (single entry), Physiology (the statutory requirements for primary and grammar schools), United States History (two semesters' work), Civil Government (one semester's work), Composition (two semesters' work), Drawing (two semesters' work). The work in Bookkeeping, Composition, Drawing, and Civil Government is not required, but only work in excess of the amount stated in this paragraph will receive credit as preparatory work.

In estimating the amount of work required for admission, a *preparatory credit* is regarded as the equivalent of one study daily for a term of eighteen weeks on the basis of four studies a day. Thus eight credits stand for a normal year's work.

For admission to the University thirty preparatory credits are required. No student will be admitted whose deficiencies exceed the amount represented by two credits. Candidates having deficiencies not exceeding this limit may be admitted upon condition that they complete their preparatory work within the first year after admission. Students who are admitted with conditions can make them up in the Iowa City Academy or under the direction of private tutors approved by the Faculty.

Of the thirty preparatory credits required of all students twenty are the same for all courses, and ten differ with the course of study to be pursued. The requirements common to all courses are as follows:

Mathematics (Group IV)	6 credits
English (Group II)	8 credits
History and Civics (Group III) . .	4 credits
Science (Group V)	2 credits

The requirements which differ with the course of study to be pursued are as follows:

Classical Course

Latin . . . . . 8 credits
Elective[1] . . . . . 2 credits

Philosophical Course

Latin or German or French[2] . . . . 8 credits
Elective . . . . . 2 credits

Scientific and Engineering Courses

Foreign Language[2] . . . . . 4 credits
Elective . . . . . 6 credits

The electives presented for admission may consist of additional work in foreign languages to complete the entire thirty credits, or of additional work of approved character in English, or in History, or of work in science as outlined under Group V below. Candidates are advised to present additional work in a foreign language, English, or History rather than to present the maximum of six semesters' work in Science. When additional work in Latin or modern languages is presented as an elective, it is provided that not less than two years be given to some one language, and not less than one year to each additional language that may be offered.

THE SUBJECTS REQUIRED FOR ADMISSION

GROUP I—FOREIGN LANGUAGES

In the case of each of the four foreign languages which may be offered for admission a course of study is suggested. What the University demands, however, is proficiency in the subject

1 Wherever it is possible, applicants for admission to the Classical Course should bring credits representing two years of preparatory work in Greek.

2 For these requirements in foreign language, no substitute will be accepted. However, a student may be admitted to the Philosophical Course provisionally with six terms of either Latin or a modern language and make up the deficiency (in Latin if Latin is offered for admission, otherwise in modern languages) in the University, but without University credit. During the year 1902-1903 the requirements and conditions set forth in last year's Calendar remain in force.

3 The requirement in foreign language for the Scientific, and Engineering Courses may be satisfied by two years in Latin, or in German, or in French, but not by a single year in each of two languages.

rather than a particular course of foreign language study, and the courses are outlined simply to indicate how the necessary proficiency may be attained.

1. GREEK—Grammar, Xenophon's *Anabasis* (four books), Homer's *Iliad* (three books).

The preparatory work in Greek should give thorough knowledge of grammatical forms, familiarity with the common rules of syntax, and a considerable working vocabulary. White's *First Greek Book* and Goodwin's *Greek Grammar* are the books recommended for beginners. Exercise in writing Greek should be kept up through the whole preparatory course in order to fix the student's knowledge of vocabulary as well as of grammar, and to place it completely at his command. The work in Homer should give familiarity with peculiar Homeric forms, the commoner words in the Homeric vocabulary, and the metre of the epic.

For the present the University offers a course in beginning Greek, and students coming from high schools where Greek is not taught may offer preparatory credits from the elective group instead of four credits in Greek. Such students will receive college credit for work in beginning Greek.

2. LATIN—Grammar, Cæsar (four books), Cicero (six orations), Vergil (six books), with Prosody.

Instead of the prescribed Cæsar an equivalent amount of *Viri Romæ* or Nepos will be accepted and is recommended to the preparatory schools. In this case the remainder of the requirements may be offered in Cæsar or Cicero. It is expected that three or four of the six required orations of Cicero (the Catiline orations being taken as the standard of length) and four of the six books of Vergil will be read thoroughly, and the remainder rapidly with a view to securing facility in translation. Equivalents in kind will be accepted for any part of the specific requirements. *An accurate and ready knowledge of grammatical forms and construction and a good vocabulary are of essential importance.* Sight reading should be taught and practiced from the first.

Exercise in writing Latin, based upon the current reading, ought to be carried through the *entire preparatory course.* An amount equivalent to Collar, Part III, is required for admission.

The Roman pronunciation is used in the University.

3. FRENCH—Grandgent's *Essentials of French Grammar*

or Edgren's *French Grammar*, and Super's *Reader*, with Mérimée's *Colomba*, will be accepted as an equivalent of the first year's work in French.

Alfred de Vigny's *Le cachet rouge*, Victor Hugo's *La chute*, Alexandre Dumas' *Les trois mousquetaires*, Lamartine's *Graziella*, Wells's Selections from Balzac's *Comédie humaine* and either Alphonse Daudet's *Nabob*, or Cameron's *Contes de Daudet* will be accepted as an equivalent of the second year's work in French.

4. GERMAN—During the first year the work in German should comprise: (1) Careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar, that is, upon the inflections of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs, and the more usual strong verbs, also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word order; (4) abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (5) the reading of from seventy-five to one hundred pages of graduated texts.

During the second year the work should comprise: (1) The reading of about one hundred and fifty pages of literature in the form of easy stories and plays; (2) accompanying practice in the translation into German of easy variations upon the matter read; (3) continued drill upon the rudiments of the grammar.

For a fuller statement of the work to be done and for suggestions as to methods and available texts, the teacher is referred to Section VII of the *Report of the Committee of Twelve of the Modern Language Association of America*, which has been issued in a convenient form by Messrs. D. C. Heath & Co. This report should be in the hands of every teacher of modern languages.

GROUP II—ENGLISH

5. ENGLISH—All applicants for admission, whether from accredited schools or not, will be examined to test their knowledge of English grammar and their ability to write clearly and correctly. No applicant will be accepted who is deficient in

these matters. In addition to passing this examination, the applicant must present evidence of work as follows:

a. English Grammar, Word Study, and History of the English Language . . 2 credits

At least one credit must be in English Grammar. This must be a course in grammar taken in the high school or other secondary school. Eighth grade grammar will not be accepted, as pupils in that grade have not sufficient maturity of mind for a final study of the subject. Text-books suggested are: Buehler's *Modern English Grammar* (Newson & Co.); Carpenter's *Principles of English Grammar* (The Macmillan Co.); Baskervill and Sewell's *English Grammar* (American Book Co.); Davenport and Emerson's *Principles of Grammar* (The Macmillan Co.); Whitney and Lockwood's *English Grammar* (Ginn & Co.); Whitney's *Essentials of English Grammar* (Ginn & Co.).

The study of words should be based upon some such book as *A Study of English Words*, by Jessie M. Anderson (American Book Co.).

b. Composition and Rhetoric . . . 2 credits

Proper preparation for this requirement includes constant practice in writing, with careful correction and revision of themes. A part of the time should be devoted to the study of some good text-book. Text-books suggested are: Herrick and Damon's *Composition and Rhetoric* (Scott, Foresman & Co.); Keeler and Davis's *Studies in English Composition* (Allyn and Bacon); Scott and Denney's *Composition-Rhetoric* (Allyn and Bacon); Lockwood and Emerson's *Composition and Rhetoric* (Ginn & Co.); Newcomer's *Elements of Rhetoric* (Holt & Co.); Lewis's *Inductive Lessons in Rhetoric* (D. C. Heath & Co.); Webster's *English: Composition and Literature* (Houghton, Mifflin & Co.).

c. Literature . . . . . 4 credits

Throughout the high school course much attention should be paid to English and American Literature. Entire masterpieces suited to the attainments of the class should be carefully studied. In addition, collateral reading should be assigned and written reports required. Among the masterpieces should be those suggested in the "uniform college entrance requirements" in English. For 1903 and 1904 these are as follows:

(1) For careful study:

Burke's Speech on *Conciliation with America;* Macaulay's Essays on *Milton* and *Addison;* Milton's Minor Poems; Shakespeare's *Macbeth.*

(2) For general reading:

Addison's Sir Roger de Coverley Papers; Coleridge's *The Ancient Mariner;* Eliot's *Silas Marner;* Goldsmith's *The Vicar of Wakefield;* Lowell's *The Vision of Sir Launfal;* Scott's *Ivanhoe;* Shakespeare's *The Merchant of Venice;* Shakespeare's *Julius Cæsar;* Tennyson's *The Princess.*

During the last year of the course a good outline history of English Literature, such as Pancoast's *Introduction to English Literature* (Henry Holt & Co.), Halleck's *History of English Literature* (American Book Co.), or Scudder's *English Literature* (Globe School Book Co.), should be carefully studied.

For the study of American Literature, text-books suggested are: Noble's *Studies in American Literature* (The Macmillan Co.); Matthews's *Introduction to American Literature* (American Book Co.); Newcomer's *American Literature* (Scott, Foresman & Co.); Pancoast's *American Literature* (Holt & Co.).

GROUP III—HISTORY AND CIVICS

6. HISTORY—At least four semesters' work should be presented in History. The course of study and available text-books should be somewhat as follows: First semester, *History of Greece* (Oman, Smith, Cox, or Myers); second semester, *History of Rome* (Allen, Morey, Smith, or Myers); third semester, *History of England* (Larned, Montgomery, or Gardiner), or *The History of the United States* (Channing, Thomas, Fiske, Johnston, Montgomery, McMaster, or McLaughlin); fourth semester, *The History of the United States*, or *Civil Government* (Fiske's *Civil Government* or Andrews's *Manual of the Constitution*).

Instead of the first two semesters' work in History indicated above, which is preferred, the University will accept for the present two semesters' work in general history from one of the following text-books: Myers, Fisher, Freeman, or Colby.

7. ECONOMICS—(a) A half year's work on the Principles of Political Economy as presented in the following text-books will be accepted: J. Laurence Laughlin's *Elements of Political*

Economy (American Book Co.); Francis A. Walker's *First Lessons in Political Economy* (Henry Holt & Co.); or (b) Industrial History and the Elements of Economic Theory studied on the basis of an outline like Henry W. Thurston's *Economics and Industrial History for Secondary Schools* (Scott, Foresman & Co.), or Frederick R. Clow's *Introduction to the Study of Commerce* (Silver, Burdette & Co.).

GROUP IV—MATHEMATICS

8. ALGEBRA—The Algebra of the high school should comprise a careful study of the following topics: signs and symbols; fundamental operations; factoring (including lowest common multiple and highest common divisor); fractions; simple and quadratic equations; theory of exponents (including negative and fractional exponents and radicals); progressions. Especial attention should be given to such salient points as the significance of the minus sign, factoring, theory of exponents, equations, and the formal statement of algebraic problems. The interpretation of algebraic results with their graphical representation should be introduced at the earliest possible stage and constantly insisted upon.

Three credits, representing at least one and a half years' work of daily recitation, are required in Algebra.

9. GEOMETRY — Both Plane and Solid Geometry are required. In beginning the study of Geometry the "heuristic" method is recommended (see Hopkins's *Manual of Plane Geometry*, D. C. Heath & Co.; Spencer's *Inventional Geometry*, D. Appleton & Co.; Campbell's *Observational Geometry*, Harper & Brothers).

Whatever method is used, the pupil should be provided with adequate drawing instruments and should construct and verify all of his propositions and theorems. Geometric processes and results should be expressed by algebraic symbols whenever possible. Original investigations should not simply be encouraged, but should be insisted upon as a matter of course. The eminently practical side of the study of Geometry is not to be lost sight of, but the work should be so arranged that it may be of the highest disciplinary value. The language of all geometrical exercises should be exact.

Three credits, representing at least one and a half years' work of daily recitation, are required in Geometry; one semester should be devoted to Solid Geometry.

10. ARITHMETIC—The work in Arithmetic should in general be completed in the grammar grades. A half year's work in Arithmetic and review Algebra may be done with great profit in the high school after the completion of the required work in Algebra and Geometry. Not only will a general review of the subject be found beneficial in itself, but the higher point of view now attainable may be take advantage of in many ways.

In addition to the six credits in Algebra and Geometry, one credit for advanced work in Arithmetic, and one credit for work in Bookkeeping (by double entry) will be accepted as part of the elective credits.

It is desirable that the high school work in Mathematics be not finished until the end of the course, in order that there may be no break in the continuity of the work between the high school and the University.

GROUP V—SCIENCE

Work in the sciences named below will be accepted in partial fulfillment of the requirements for admission, provided that the student has given to each subject offered not less than the time indicated in the table below. The subjects are arranged in order of preference.

1. Physics, 36 weeks;
2. Botany, 18 weeks;
3. Physical Geography, 18 weeks;
4. Physiology, 18 weeks;
5. Chemistry, 18 weeks;
6. Zoology, 18 weeks.

11. PHYSICS—One of the chief aims of the course in Physics should be to train the pupil in accurate and impartial observation, and to develop independent judgment rather than to impart knowledge of a large number of facts. Constant use should be made of problems in which the pupil may apply the mathematics he has already mastered.

The competent teacher will know how to make valuable use of simple apparatus, such as can be made or procured at home; but the subject cannot be satisfactorily presented without some special instruments, and these should be of modern design and good workmanship. In all schools there should be a supply of such appliances as will enable the teacher to present to the class in a successful manner the more interesting demonstrations of phenomena and laws.

Among the good text-books and manuals are: Carhart and

Chute's *Elements of Physics* (Allyn & Bacon); Geo. A. Hoadley's *A Brief Course in Physics* (American Book Co.); Charles B. Thwing's *An Elementary Physics* (Benj. H. Sanborn & Co.); Rowland and Ames's *Elements of Physics* (American Book Co.).

One full year should be given to the study of Physics. Of this time not less than one-half should be devoted to experiments and observations by the pupil.

12. BOTANY—The aim should be to make pupils familiar with the local flora, especially in its economic aspects. The habit of carefully observing and then carefully recording should be established from the first. Probably a carefully kept note book will be found much better than an herbarium.

The following text-books are suggested as suitable for the guidance of study in elementary Botany: Macbride's *Lessons in Elementary Botany* (Allyn & Bacon); Coulter's *Plant Relations* (D. Appleton & Co.); Barnes's *Outlines of Plant Life* (Henry Holt & Co.); Bailey's *Lessons with Plants* (The Macmillan Co.); Leavitt's *Outlines of Botany* (The American Book Co.); Coulter's *Plant Structures* (D. Appleton & Co.).

The minimum amount of work for which preparatory credit will be given is the equivalent of five recitations or exercises per week for half the school year.

13. PHYSICAL GEOGRAPHY—The pupil should gain a knowledge of the simpler facts and principles of mathematical geography, such as the relations of the members of the solar system, the form and movements of the earth, the phases of the moon, etc.; the atmosphere, atmospheric phenomena, such as winds, temperature, precipitation, etc., and their causes; the evolution of land forms, including the modifying agencies and their mode of operation; the effect of climate and topography on human activity, etc.

The following text-books are recommended: Dryer's *Lessons in Physical Geography* (American Book Co.); *Physical Geography*, by W. M. Davis (Ginn & Co.); *Elementary Lessons in Physical Geography*, by A. Geikie (The Macmillan Co.); *Elementary Physical Geography*, by R. S. Tarr (The Macmillan Co.). The *Topographic Atlas of the United States*, *Physiographic Types*, Folios I, II, and III, published by the United States Geological Survey, at twenty-five cents each, are very valuable for class exercises. The following books are excellent for reference: *The Teaching of Geography*, by A. Geikie (The Macmillan Co.); *The Realm of Nature*, by R. H. Mill (Chas.

Scribner's Sons); *Earth Sculpture*, by Jas. Geikie (G. P. Putnam's Sons); *Geography of the Region About Devil's Lake and the Dalles of the Wisconsin*, by R. D. Salisbury and W. W. Atwood, published by the Wisconsin Geological Survey, E. A. Birge, Director, Madison, Wisconsin; the local county reports published by the Iowa Geological Survey; *Government Maps for use in Schools*, by Davis, King, and Collie (Henry Holt & Co.). The local field should be used for illustration as far as possible. The county reports will furnish valuable aid in field work.

The minimum amount of work for which preparatory credit will be given is the equivalent of five recitations or exercises per week for half the school year.

14. PHYSIOLOGY—For preparation in Physiology, the method of study should combine certain work of a practical nature with lessons from the text-book. This practical work should embrace the observation of general physiological phenomena through experiments so simple that the pupil can make most of them, supplemented by demonstrations in anatomy and microscopy carefully prepared by the teacher. Expensive apparatus is not only unnecessary for this work, but it is really out of place. Even the microscope should be used only as an occasional accessory to what the pupil may observe with unaided vision. The keeping of notes and sketches, recording clearly and systematically the more important observations, should accompany the course throughout.

The following text-books are recommended as indicating scope of acceptable preparatory work: Colton's *Physiology, Briefer Course* (D. C. Heath & Co.); Martin's *Human Body, Briefer Course*, revised by Fitz (Henry Holt & Co.); Blaisdell's *Practical Physiology* (Ginn & Co.); Foster and Shore's *Physiology for Beginners* (The Macmillan Co.); Macy's *Physiology for High Schools* (American Book Co.).

The minimum amount of work for which preparatory credit will be given is the equivalent of five recitations and laboratory exercises per week for half the school year.

15. CHEMISTRY—Emphasize facts rather than theories. Great care should be taken that pupils are not left with the impression that formulas or equations control the phenomena instead of being merely their expression. Laboratory work is regarded as essential to an understanding of the subject. The xperiments should be simple, and the inferences from them

as direct as possible. Any arrangement in schedule form, with headings for "observations," "conclusions" and the like, tends to deaden thought rather than to arouse it. No credit will be given for work in this branch in schools where there is no laboratory whatever. *Elements of Chemistry* by Paul C. Freer (Allyn & Bacon); *Elements of Chemistry*, by Ira Remsen (Henry Holt & Co.); and *Elements of Inorganic Chemistry*, by J. H. Shepard (D. C. Heath & Co.), are recommended as suitable text-books for use in secondary schools.

The minimum time to be devoted to Chemistry in order to receive credit should be one-half year of daily laboratory work.

16. ZOOLOGY—Elementary Zoology should deal principally with the easily ascertained facts concerning some few animal forms. It is therefore recommended that the general anatomy and life histories of some typical groups of animals be made the subject of the study, and that the aim be the acquisition of the habit of correct observation and a definite knowledge concerning a few animals, rather than the learning of classifications and a superficial knowledge of the animal kingdom as a whole.

Directions for laboratory work are found in most text-books. Money for this purpose should be expended in plain but convenient tables, good dissecting microscopes, and a few cheap tools, rather than in expensive compound microscopes.

Pupils should be induced to examine carefully, and to make the most of each specimen. They should be encouraged to ask questions, and to find the answer for themselves so far as practicable.

The following text-books indicate the character and extent of the preparatory work in Zoology which will be accepted: *Practical Zoology*, Colton (D. C. Heath & Co.); *School Zoology*, Burnet (American Book Co.); *Lessons in Zoology*, Needham (American Book Co.); *Animal Life*, Jordan (D. Appleton & Co.).

The minimum time to be devoted to Zoology in order to receive credit for admission to the University should be one hour's laboratory work daily for a half year. This should be supplemented by field work and reading under the direction of the teacher.

EXAMINATION FOR ADMISSION

All applicants for admission without exception will be examined to test their knowledge of English Grammar and their ability to write clear and correct English.

Applicants presenting proper certificates from accredited schools will be admitted without farther examination. These certificates are to be made out on blank forms which will be furnished on application to the President of the University, and they must contain specific statements as to the amount of work done in each study. Delay in matriculation will be avoided if these certificates are made out and forwarded to the University before September 1.

At other high schools and in places where academies or other private schools are situated, the University is prepared to hold examinations during the third week in June. The successful candidates will receive certificates admitting them to the University.

Applicants presenting certificates from accredited schools for work not fully meeting the requirements for admission, will be examined on the subjects in which they are deficient.

If an applicant for admission by certificate has completed the prescribed amount of preparatory work in certain branches of study in less time than that indicated as being necessary under ordinary conditions, the University reserves the right to examine him in such branches of study.

All other applicants will be examined in the various subjects required for admission before being admitted as students in the University.

Any person expecting to enter the College of Liberal Arts is advised to learn before the opening of the semester exactly what entrance examinations he will be required to pass. He can learn this by addressing the President or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programmes given below*. He should present himself at once at the office of the University Examiner, who will give all necessary directions.

For *each separate* examination given at any other time than that announced in the programmes which follow, a fee of *two dollars* will be charged by the University.

PROGRAMME OF ENTRANCE EXAMINATIONS

FIRST SEMESTER

Monday, September 22 to Wednesday, September 24, 1902

Greek,	2 to 4 credits, Monday,	1:30 p. m.
Latin,	2 to 8 credits, Monday,	3:30 p. m.
French,	2 to 4 credits, Monday,	1:30 p. m.
German,	2 to 4 credits, Monday,	3:30 p. m.
English and English Grammar,	2 credits, Monday,	4:30 p. m.
	Tue., 11:00 a.m. and	4:30 p. m.
	Wed., 11:00 a.m. and	4:30 p. m.
Literature,	2 credits, Tuesday,	8:00 a. m.
General History,	2 credits, Tuesday,	9:30 a. m.
English History,	1 credit, Tuesday,	11:00 a. m.
United States History,	1 credit, Tuesday,	1:30 p. m.
Civics,	1 credit, Tuesday,	2:30 p. m.
Economics,	1 credit, Tuesday,	3:30 p. m.
Algebra,	3 credits, Wednesday,	8:00 a. m.
Plane and Solid Geometry,	3 credits, Wednesday,	9:30 a. m.
Physical Geography,	1 credit, Wednesday,	11:00 a. m.
Physics,	2 credits, Wednesday,	1:30 p. m.
Botany	1 credit, Wednesday,	3:00 p. m.
Physiology,	1 credit, Wednesday,	4:00 p. m.

SECOND SEMESTER

Friday, February 6 to Monday February 9, 1903

Same as above, reading Friday, Saturday and Monday for Monday, Tuesday and Wednesday, respectively.

ADVANCED STANDING

Students from approved colleges bringing proper certificates of work and standing will be admitted without examination. In determining their position in the University, however, the value of the work done will be measured by the University standards.

Students coming from colleges whose requirements for admission are substantially those of the University will be admitted ordinarily to equal rank, *provided they enter not later than the beginning of the senior year*. The assignment of studies will be at the discretion of the faculty.

Graduates of the four years' course of the Iowa State Normal school will be admitted to junior standing without examination and will be required to spend two years at the University before receiving a degree. Graduates of the three years' course will be admitted to sophomore standing and will be required to spend three years in residence before receiving a degree. The requirement that all applicants for admission to the University must bring certificates showing that they have completed two years' work in some one foreign language applies also to applicants for advanced standing.

COURSES OF STUDY

CLASSICAL COURSE

FRESHMAN YEAR

Greek	5 hours
Mathematics	4 hours
Latin	3 hours
English	2 hours
History	2 hours

SOPHOMORE YEAR

Greek*	5 hours
English	3 hours
Elective (not more than five hours in one department)	7 or 8 hours.

In the Junior and Senior years, all work is elective. Of the thirty-eight hours of possible electives in this course *twenty* must be chosen from the departments of Languages and Literatures, the Historical and Political Sciences, Philosophy, Pedagogy, and Public Speaking.

PHILOSOPHICAL COURSE

FRESHMAN YEAR

German or French	5 hours
Mathematics	4 hours
Latin†	3 hours
English	2 hours
History	2 hours

*In case Greek is offered for admission, German or French must be taken in its place in Sophomore year.

†In case a modern language preparation is offered, any foreign language may be taken in place of Latin.

SOPHOMORE YEAR

German or French or Spanish	3 hours
English	3 hours
Elective (not more than five hours in one department)	9 or 10 hours

In the Junior and Senior years all work is elective. Of the forty hours of possible electives in this course *twenty* must be chosen from the departments of Languages and Literatures, the Historical and Political Sciences, Philosophy, Pedagogy, and Public Speaking.

GENERAL SCIENTIFIC COURSE

FRESHMAN YEAR

German or French*	5 hours
Mathematics	4 hours
Physics	4 hours
English or Drawing†	2 hours

SOPHOMORE YEAR

German or French* 5 hours *or*, German or French 3, and Elective 2 hours	5 hours
English	3 hours
Chemistry	4 hours
Astronomy, Botany, Geology, Mathematics, Mineralogy, Morphology and Physiology, Physics, Zoology	4 hours

JUNIOR YEAR

Astronomy, Botany, Chemistry, Geology, Mathematics, Mineralogy, Morphology and Physiology, Physics, Zoology	10 hours
Elective	5 hours

*One year of any foreign language work of collegiate grade may be substituted for German or French in either Freshman or Sophomore year but not in both years.

†1. If Drawing be here elected the English requirement of Freshman and Sophomore years must be made up in subsequent years.

2. Freshman English may be taken in the Sophomore year, and Sophomore English in the Junior year in lieu of an equivalent amount of required science.

SENIOR YEAR

Elective. . . . . 15 hours

No substitution whatever is allowed for any requirement of the Scientific Course, except as indicated in the foot notes.

SPECIAL COURSES IN SCIENCE

The student who wishes, in his undergraduate course, to specialize in some particular line of scientific study, should at the beginning of the sophomore year choose from the group of sciences then open to him (Botany, Zoology, Morphology, Geology, Chemistry, Physics, Mathematics, and Astronomy), that subject most directly connected with the branch to which he wishes to give special attention. He will thus be able to pursue his chosen study without interruption through three years of his course, the last of which may, if he so choose, be devoted entirely to his specialty.

Such extreme specialization is not recommended to undergraduate students, it being the opinion of the Faculty of the College of Liberal Arts that a better preparation for a scientific career will be afforded by a broader and more liberal course of study. However, those wishing to specialize in any branch of science are urged to confer freely with the professors with whom they expect to pursue such study.

COURSE IN CIVIL ENGINEERING

FRESHMAN*

	FIRST SEMESTER	SECOND SEMESTER
German or French	5 hours	5 hours
Mathematics	4 hours	4 hours
Physics	4 hours	4 hours
Drawing	2 hours	2 hours

SOPHOMORE

English (Freshman)	2 hours	2 hours
Mathematics	4 hours	4 hours

*Throughout the Freshman year the Civil Engineering and General Scientific courses are so nearly identical that students of one course may change to the other without serious inconvenience.

Surveying, Mapping, and Lettering	5 hours	
Descriptive Geometry and Topographical Surveying		4 hours
Chemistry	4 hours	
Railway Curves and Earthwork		2 hours
Geology	2 hours	2 hours
Shop Work		2 hours

JUNIOR

English (Sophomore)	3 hours	3 hours
Physics	4 hours	2 hours
Analytical and Applied Mechanics	4 hours	3 hours
Graphics	2 hours	4 hours
Theory of Stresses	2 hours	4 hours
Shop	2 hours	

SENIOR

Limes and Cement	2 hours	
Resistance of Materials		2 hours
Steam Engine	2 hours	
Hydraulics		3 hours
Sanitary Engineering	2 hours	
Water Supply		2 hours
Designing	4 hours	3 hours
Civil Engineering	3 hours	3 hours
Laboratory	2 hours	2 hours
Specifications and Conts	2 hours	
Engineering Society or Thesis		2 hours

COURSE IN ELECTRICAL ENGINEERING

FRESHMAN YEAR

	FIRST SEMESTER	SECOND SEMESTER
German or French†	5 hours	5 hours
Mathematics	4 hours	5 hours
Physics	4 hours	4 hours
English	2 hours	4 hours
Shop work, optional	1 hour	1 hour

†One year of French and one of German are required. Either may be taken during the Freshman year, to be followed by the other in the Sophomore year.

SOPHOMORE YEAR

French or German	5 hours	5 hours
Mathematics	4 hours	4 hours
Physics	3 hours	3 hours
Drawing	2 hours	2 hours
Shop work	2 hours	2 hours

JUNIOR YEAR

Chemistry	4 hours	4 hours
English	3 hours	3 hours
Physics, (electricity, thermodynamics, and laboratory work)	4 hours	3 hours
Mathematics	4 hours	5 hours
Seminary	1 hour	1 hour

SENIOR YEAR

Draughting	3 hours	3 hours
Steam Engine, and Resistance of Materials	2 hours	2 hours
Electrical Laboratories and Lectures	10 hours	8 hours
Electro-chemistry		2 hours

COURSE IN MINING ENGINEERING

FRESHMAN YEAR

	FIRST SEMESTER	SECOND SEMESTER
French or German	5 hours	5 hours
Mathematics 1 (a, b)	4 hours	
Mathematics 2 (a) and 2 (b)		4 hours
Physics 1, 2	4 hours	4 hours
Drawing	2 hours	2 hours

SOPHOMORE YEAR

Freshman English	2 hours	2 hours
Mathematics 5 (a, b)	4 hours	
Mathematics 6		4 hours
Chemistry 1, 2	4 hours	4 hours
Physics 5 (lectures)	2 hours	
Physics 6 and 3		4 hours
Surveying and Mapping	5 hours	
Shop work		2 hours

JUNIOR YEAR

Sophomore English	3 hours	3 hours
Analytical and Applied Mechanics	4 hours	3 hours
Qualitative Analysis 3, 6 (a, b)	2 hours	4 hours
Determinative Mineralogy 15	2 hours	
Geology 3, 7	4 hours	4 hours
Shop Work		2 hours

SENIOR YEAR

Steam Engine	2 hours	
Theory of Stresses	2 hours	
Practical Mining	4 hours	4 hours
Geology 9	4 hours	4 hours
Elective	4 hours	3 hours
Resistance of Materials		2 hours
Hydraulics		3 hours

COURSE IN MINING AND METALLURGY

FRESHMAN YEAR

	FIRST SEMESTER	SECOND SEMESTER
English or Drawing	2 hours	2 hours
French or German	5 hours	5 hours
Mathematics 1 (a, b)	4 hours	
Mathematics 2 (a) and 2 (b)		4 hours
Physics 1, 2	4 hours	4 hours

SOPHOMORE YEAR

Sophomore English	3 hours	3 hours
French or German	3 hours	3 hours
Chemistry 1, 2	4 hours	4 hours
Geology 5, 6	4 hours	4 hours
Drawing or Freshman English	2 hours	2 hours

JUNIOR YEAR

Geology 3, 7	4 hours	4 hours
Physics 3, 4	3 hours	3 hours
Qualitative Analysis 3	2 hours	
Qualitative Analysis 5 (a)	1 hour	
Quanitative Analysis 6 (a), 6 (b)		3 hours
Determinative Mineralogy 15	1 hour	1 hour
Elective from Mathematics and Engineering	5 hours	5 hours

SENIOR YEAR

Geology 6	4 hours	4 hours
Electro-chemistry and Electro-metallurgy, laboratory course, 9, 10,	2 hours	2 hours
Quantitative Analysis applied to Mining, laboratory course, 5 b	2 hours	
Metallurgical Assaying, laboratory course, 6 b		2 hours
Physics 5, lectures	2 hours	
Physics 6, and Laboratory Work		2 hours
Shop Work	2 hours	2 hours
Elective	4 hours	4 hours

*MILITARY SCIENCE AND TACTICS

Instruction in these branches both theoretical and practical is required of male students in the College of Liberal Arts except such as are specially excused.

PHYSICAL TRAINING

Physical Training for women is required of all women in the Freshman and Sophomore classes. Instruction will be provided by the University without expense to students.

REGULAR STUDENTS

All students, except as provided under "unclassified students," must elect one of the courses of study, pp. 64–70, and follow it as laid down in the order as prescribed, carrying neither more nor less than fifteen hours of lectures or recitations per week except as required by the programme of their course, or permitted by the Faculty.

UNCLASSIFIED STUDENTS

1. Persons twenty-one years of age, not candidates for a degree, may be admitted as unclassified students without examination, except in English, and may pursue studies at the discretion of the Faculty on the recommendation of the professors in charge of the subjects chosen.

2. Such students of the professional Colleges as are allowed to carry additional work in this College, not candidates for a

*For specific requirements and all particulars consult "Military Science" and "Physical Training" in this calendar.

degree in this College, will be recorded as "unclassified." If students of either of these classes become candidates for a degree in the College of Liberal Arts, they will be required to furnish evidence, by examination or acceptable certificate, of having completed the preparatory requirements.

3. Persons under twenty-one years of age not candidates for a degree, admitted to the College without conditions, whose reasons for irregular work are approved by the Faculty, may be registered as unclassified. Unclassified students are subject to the same requirements as regular students as to amount of work to be carried, examinations and scholarship.

COMBINED LIBERAL ARTS AND LAW COURSE

Students of the College of Liberal Arts who have completed their junior year and are entitled to senior standing at the beginning of the University year may be enrolled in the College of Law and receive credit for one year's time of law study while completing their senior year in the College of Liberal Arts, by complying with the following conditions: They must schedule for five hours per week in the College of Law in the subjects of the first year's course, and five hours a week in courses in the College of Liberal Arts approved by a joint committee of the College of Liberal Arts and the College of Law selected from the group of subjects embracing Political and Social Science including political and institutional history; the remaining five hours may be elected in any course the student desires, subject to the regulations of the College of Liberal Arts. Students in this combined course who earn credit for Elements of Jurisprudence, International Law and Constitutional Law in the College of Liberal Arts are excused from Elementary Law, International Law and Constitutional Law, except Constitutional Limitations, as given in the College of Law, and the grades made by students in such subjects in the College of Liberal Arts will be accepted as credits in the College of Law. Students of this course must, however, with the exception of the absolute equivalents above enumerated, pass examination in all the subjects of the law course prior to graduation. The five hours of law during the first year of the combined course will be given at 9 o'clock a. m., throughout the year.

Students in the College of Law not candidates for a Liberal Arts degree may take work in the College of Liberal Arts not

SENIOR YEAR

Geology 6	4 hours	4 hours
Electro-chemistry and Electro-metallurgy, laboratory course, 9, 10,	2 hours	2 hours
Quantitative Analysis applied to Mining, laboratory course, 5 (b)	2 hours	
Metallurgical Assaying, laboratory course, 6 b		2 hours
Physics 5 (lectures)	2 hours	
Physics 6, and Laboratory Work .		2 hours
Shop Work	2 hours	2 hours
Elective	4 hours	4 hours

*MILITARY SCIENCE AND TACTICS

Instruction in these branches both theoretical and practical is required of male students in the College of Liberal Arts except such as are specially excused.

PHYSICAL TRAINING

Physical Training for women is required of all women in the Freshman and Sophomore classes. Instruction will be provided by the University without expense to students.

REGULAR STUDENTS

All students, except as provided under "unclassified students," must elect one of the courses of study, pp. 64–70, and follow it as laid down in the order as prescribed, carrying neither more nor less than fifteen hours of lectures or recitations per week except as required by the programme of their course, or permitted by the Faculty.

UNCLASSIFIED STUDENTS

1. Persons twenty-one years of age, not candidates for a degree, may be admitted as unclassified students without examination, except in English, and may pursue studies at the discretion of the Faculty on the recommendation of the professors in charge of the subjects chosen.

2. Such students of the professional Colleges as are allowed to carry additional work in this College, not candidates for a

*For specific requirements and all particulars consult "Military Science" and "Physical Training" in this calendar.

degree in this College, will be recorded as "unclassified." If students of either of these classes become candidates for a degree in the College of Liberal Arts, they will be required to furnish evidence, by examination or acceptable certificate, of having completed the preparatory requirements.

3. Persons under twenty-one years of age not candidates for a degree, admitted to the College without conditions, whose reasons for irregular work are approved by the Faculty, may be registered as unclassified. Unclassified students are subject to the same requirements as regular students as to amount of work to be carried, examinations and scholarship.

COMBINED LIBERAL ARTS AND LAW COURSE

Students of the College of Liberal Arts who have completed their junior year and are entitled to senior standing at the beginning of the University year may be enrolled in the College of Law and receive credit for one year's time of law study while completing their senior year in the College of Liberal Arts, by complying with the following conditions: They must schedule for five hours per week in the College of Law in the subjects of the first year's course, and five hours a week in courses in the College of Liberal Arts approved by a joint committee of the College of Liberal Arts and the College of Law selected from the group of subjects embracing Political and Social Science including political and institutional history; the remaining five hours may be elected in any course the student desires, subject to the regulations of the College of Liberal Arts. Students in this combined course who earn credit for Elements of Jurisprudence, International Law and Constitutional Law in the College of Liberal Arts are excused from Elementary Law, International Law and Constitutional Law, except Constitutional Limitations, as given in the College of Law, and the grades made by students in such subjects in the College of Liberal Arts will be accepted as credits in the College of Law. Students of this course must, however, with the exception of the absolute equivalents above enumerated, pass examination in all the subjects of the law course prior to graduation. The five hours of law during the first year of the combined course will be given at 9 o'clock a. m., throughout the year.

Students in the College of Law not candidates for a Liberal Arts degree may take work in the College of Liberal Arts not

to exceed five hours per week so long as they maintain a good standing in their law studies and do this elected work to the satisfaction of the professors in charge.

COMBINED COURSE FOR THE COLLEGE OF LIBERAL ARTS (SCIENTIFIC COURSE) AND THE COLLEGES OF MEDICINE AND HOMŒOPATHIC MEDICINE

First Year

German—5.
Mathematics—4.
Physics—4.
English or Drawing*—2.

Second Year

German—3.
English—3.
Chemistry—4.
Zoology—4.
Animal Physiology—3.

Third Year

Botany—4.
Chemistry—2.
Animal Morphology (adv.)—4.
Elective in College of Liberal Arts—5.

Fourth Year

Medical work exclusively.

Fifth Year

Medical work exclusively.

Sixth Year

Medical work exclusively.

Seventh Year

French—10 semester hours.
Elective in College of Liberal Arts—10 semester hours.

It is deemed possible for students of marked ability to complete this course in six years by taking one year's work in French and one year's work in an elective in the College of Liberal Arts, in addition to the medical work in the fifth and sixth years of the combined course, or where practicable.

COMBINED COURSE IN THE COLLEGE OF LIBERAL ARTS (SCIENTIFIC COURSE) AND THE COLLEGE OF DENTISTRY

First Year

German—5.
Mathematics—4.
Physics—4.
English or Drawing*—2.

Second Year

German—3.
English—3.
Chemistry—4.
Zoology—4.
Animal Physiology—3.

*Conditions as in General Scientific Course.

Third Year	*Fourth Year*
Botany—4.	In Dental College.
Chemistry—2.	French — 10 semester-hours in the College of Liberal Arts.
Animal Morphology (adv.)—4.	
Elective in the College of Liberal Arts—5.	

Fifth Year	*Sixth Year*
In Dental College.	In Dental College.
Elective in the College of Liberal Arts—10 semester hours.	

It is possible for students to take French, ten hours, during the fourth year, and an elective of ten hours in the fifth year in the College of Liberal Arts, while pursuing the work in the College of Dentistry. This is deemed feasible, due to credits allowed by the College of Dentistry for work done in the first three years in the College of Liberal Arts.

BACCALAUREATE DEGREES

For each of the courses of study leading to a bachelor's degree four years' work is required.

On completion of the regular courses, or of the special courses approved by the Faculty, the following degrees are conferred:

Bachelor of Arts upon those who complete the Classical course.

Bachelor of Philosophy upon those who complete the Philosophical course.

Bachelor of Science upon those who complete the General Scientific Course, or either of the Engineering or Mining courses, or a special course in science which has previously been approved by the Faculty.

The degree of Bachelor of Didactics is conferred upon *graduates* in the regular courses who have completed the required work in pedagogy and can show proof of two years' successful teaching after graduation.

SPECIAL CERTIFICATES IN GERMAN, FRENCH, AND ENGLISH

Special certificates as to scholarship in German, in French, or in English will be granted under the authority of the Faculty of the College of Liberal Arts on the following conditions:

1. They shall be issued to students of this University on or after graduation only.

2. They shall be in the nature of an authorized guaranty as to scholarship in German, in French, or in English.

3. They shall be issued only after *at least* three years of full work (to represent *five* hours of lectures and recitations a week or an equivalent) in one of these subjects.

4. Candidates must pass a final examination in the subject in which the certificate is desired.

5. The examination must be conducted by the professor in charge of the subject, assisted by such other instructors as may be agreed upon by him and the President of the University.

6. These certificates will be signed by the President and by the professor immediately concerned.

PROFESSIONAL CERTIFICATES IN PEDAGOGY

The University will grant the certificates named and described below on the following general conditions:

1. An average standing of 8½ must be attained in all subjects.

2. The candidate must give such evidence of superior ability in his work as will, in the judgment of the Faculty, entitle him to a recommendation as a teacher or supervisor of schools. It is distinctly understood that not all work which may count towards a degree is necessarily sufficient to count towards these certificates.

I. SUPERVISOR'S CERTIFICATE

The University will issue a University supervisor's certificate to each student who includes in his course for his baccalaureate degree the work designated in this paragraph. In issuing this certificate, the University gives its official recommendation to the recipient, in view of the work which he has done during his University course, as being a person suitable to engage in the work of organizing and conducting graded schools.

The requirements are:

1. General Psychology, six semester hours.

2. Courses 1 (*2*), 3 (*4*), 5 (*6*), 7 (*8*), 11, (*12*), and 13 in Pedagogy, aggregating twenty-four semester hours.

3. General knowledge. Additional work sufficient to meet the requirements for graduation from one of the courses in the College of Liberal Arts.

II. TEACHER'S CERTIFICATE

The University will issue a teacher's certificate to each student who includes in his course for his baccalaureate degree the work designated in this paragraph. In issuing this certificate the University gives its official recommendation to the recipient, in view of the work which he has done during his University course, as being a person suitable to engage in the public school service. The requirements are:

1. Special knowledge.

(a) The student must secure a certificate of special proficiency in one of the subjects in which the University grants such certificates; *or*

(b) He must complete an amount of work of not less than twenty-four semester hours in the aggregate in a subject or group of allied subjects, which he expects to teach, and for which the University grants no special certificate.

The special subjects required, and the candidate's proficiency will be determined by the head of the department in which the major part of the work is done.

2. Professional knowledge. The student must complete the following work in the departments of Philosophy and Pedagogy:

(a) Two semesters of three hours a week in Psychology; and

(b) Six hours a week for a year (twelve semester hours) in Pedagogy, including the course in Child Study, and the course in the Principles of Education. The remainder of the pedagogical work shall be selected from courses 3 (*4*), 5 (*6*), 7 (*8*).

OUTLINE OF THE PLAN OF INSTRUCTION

GREEK LANGUAGE AND LITERATURE

CLASSICAL ARCHÆOLOGY

PROFESSOR FAIRBANKS; PROFESSOR CALL

The first two courses in Greek are intended to give the student an accurate knowledge of forms, syntax, and vocabulary, such that in the more advanced courses he can read with comparative ease and appreciate the character of the literature he is studying. While the first aim in all the work of the department is an accurate knowledge of the Greek language, it is not treated as a dead language, and every student is taught to feel that his work brings him into real contact with a people whose thought and literature and art have inspired much of what is best in our own civilization. Accurate translation into idiomatic English, reading aloud the Greek text in order to train the student to grasp the thought without the intervention of English, and writing simple Greek are practiced in connection with each course.

A. ELEMENTARY COURSES

Courses 5 to 12 are open to those who have completed course 3 or its equivalent.

*1, (*a*). BEGINNING GREEK—A course in beginning Greek is offered to students who desire by a special effort to acquire in one year the ability to read simple Attic prose. Goodwin's *Greek Grammar* and White's *First Greek Book* are used in the first semester, and during the second semester two or three books of Xenophon's *Anabasis* are read. Professor CALL.

Daily at 11, throughout the year.

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*Courses with odd numbers are given in the first semester, those with even numbers in the second semester. Where a course runs through the year it receives a double number, e. g. 1, (*a*); the whole course is designated in the calendar by the first number, but on the registrar's books each half of the course is designated by its one number.

3, (4). XENOPHON; PLATO; HOMER—During the first four weeks the work in Xenophon will be continued, and the principles of grammar reviewed. Plato's Apology and selections from his other writings occupy the remainder of the first semester. In the second semester Homer's Odyssey is read by the class, and lectures are given on Homeric times and on the character of the Greek epic. Professors CALL and FAIRBANKS.

Daily at 10, throughout the year.

5, (6.) THE GREEK ORATORS—First semester: The earlier Greek orators; selections are read by the class and reports are given on orations which are not read in class; lectures on the development of Greek oratory. Second semester: Demosthenes; the class reads the *Philippics* and the *Oration on the Crown* and individual members report on other orations. The special aim of the course is to introduce the class to the spirit of Greek oratory, and to the technical methods of which it made use. Professor FAIRBANKS.

Mon., Wed., Fri., at 8, throughout the year.

NOTE: *This course is recommended to students who are also taking public speaking 9.*

7, (8). GREEK DRAMA, I.—ÆSCHYLUS, PROMETHEUS BOUND; SOPHOCLES, ANTIGONE; EURIPIDES, ALCESTIS—With this course are required supplementary readings from other tragedies, and reports on the origin, literary form, and representation of Greek tragedy. Professor CALL.

Mon., Wed., Fri., at 8, throughout the year.

[9. PLATO—Plato's Gorgias is read by the class together, and each member of the class is expected to read one other of Plato's dialogues and report on it. Professor FAIRBANKS.

First semester; Mon., Wed., Fri., at 10.]

[10. TEACHER'S COURSE IN HOMER—The class reads selections from the Iliad which give in outline the whole story of the epic. Special attention is given to questions of language, metre, etc., which arise in high school work. Professor CALL.

Second semester; Mon., Wed., Fri,, at 10.]

Courses 9 and 10 were given in 1901–1902 and will be repeated in 1903–1904.

11. LUCIAN—Selected dialogues. Professor FAIRBANKS.

First semester, two hours a week.

12. NEW TESTAMENT GREEK—A careful study of biblical Greek from the philological standpoint. Professor CALL.

Second semester, two hours a week.

[13, (*14*). OLD GREEK LIFE—Lectures, illustrated with lantern slides, books on art, etc.; collateral reading in English and examinations are required of the students; references are also given to important works in French and German for those who can use these languages. The lectures will treat of the characteristics of the land and the people; the Greek house, dress, and mode of life; marriage and funeral customs; markets and trade generally; the duties of the citizens in peace and war, etc. Professor FAIRBANKS.

Two hours a week, throughout the year.

NOTE—*A knowledge of Greek is not required for this course; it is recommended to students in the philosophical course, as well as those in the classical course.*]

This course was given in 1901–1902, and will be repeated in 1903–1904

14, (*15*). GREEK LITERATURE—An outline of the subject intended both for Greek students and for students not studying Greek. Professor CALL.

One hour a week, throughout the year.

17, (*18*). GREEK PROSE COMPOSITION—A course intended to supplement the work in courses 3, 4, 5, and 6. Professor FAIRBANKS.

One hour a week, throughout the year.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

[19, (*20*). GREEK DRAMA, II; SOPHOCLES—The entire seven plays are read with care; lectures on Greek metres, and on the historical development of Greek tragedy accompanying the reading; and students are expected to prepare one paper each semester on a subject connected with their work. Professor CALL.

Three hours a week throughout the year.]

This course alternates with course 21, and may be expected in 1903–1904.

21, (*22*). GREEK HISTORY—An advanced course in Greek History for students who are prepared to make investigations

from the original sources. In 1902–1903 the period of the Persian wars will be made the subject of the work. Professor FAIRBANKS.

Three hours a week, throughout the year.

The introductory course in Greek History is found under the Department of History, course 1.

23. THE ATHENIAN CONSTITUTION—A study of the constitution of Athens with special reference to its effect on the development of Greek society. The class reads Aristotle's Constitution of Athens (in English translation) and selections from the Politics. Professor FAIRBANKS.

First semester, two hours a week.

This course is intended for students who have had either History 1, or Politics 1.

[25. EDUCATION IN GREECE AND ROME—An advanced course in the history of education. Professor FAIRBANKS.

First semester, two hours a week.]

This course alternates with course 23, and will be given in 1903–1904.

27, (28). GREEK ART. First semester: Sculpture. The work will be based on Gardner's Handbook of Greek Sculpture. The collections of casts, photographs, and lantern slides are used in connection with each exercise.

Second semester: Architecture, Vase-painting, and the minor arts. The student is made acquainted with the more important extant Greek and Roman buildings, and with the principles of architecture. For the study of vase-painting the library is especially well equipped; the lectures deal both with the development of technique, and with the scenes from Greek mythology and Greek life which are depicted on vases. Professor FAIRBANKS.

Three hours a week throughout the year.

[29, (30). GREEK AND ROMAN MYTHOLOGY—Lectures on the origin and transmission of myths; a study of the more important myths of Greece and Rome; and an investigation of the influence of tragic myths on later literature, especially English literature. The course is designed for students of literature, as well as for those who may expect to teach either Latin or Greek. A knowledge of Greek is not required for this course. Professor FAIRBANKS.

Two hours a week.]

This course was given in 1901–1902 and will be omitted in 1902–1903.

C. COURSES PRIMARILY FOR GRADUATES

[31, (*32*). GREEK DRAMA III: ARISTOPHANES—A study of the extant comedies of Aristophanes, with special reference to the light they throw on the different phases of Greek life. Several comedies are read by the class together, and the remainder are made the subject of reports by individuals. Each member of the class is assigned a topic on which he prepares a careful paper embodying the results of his own research. Professor FAIRBANKS.

Two hours a week and an additional hour at the pleasure of the instructor.]

This course was given in 1901–1902 and will be omitted in 1902–1903.

33, (*34*). PINDAR AND THE LYRIC POETS—The more important fragments of lyric poetry are read, and the extant poems of Pindar are made the subject of special study. Professor CALL.

Two hours a week throughout the year.

35, (*36*). GREEK ARCHÆOLOGY. If called for, an advanced course in some topic will be given by Professor FAIRBANKS.

During the current year (*1901–1902*) a series of illustrated lectures has been given before the University by Professor Fairbanks on subjects connected with classical art and archæology. Six of the lectures were on the general topic of Greek religion, and three on Greek architecture.

A class in the Greek New Testament will be organized by Professor Fairbanks, and all students of Greek are urged to join it. The class will meet once a week, and no registration is required. The writings of Luke will be studied in 1902–1903.

A Greek Club, composed of instructors and graduate students, was organized in January of the current year and has held weekly meetings at the house of an instructor. During the present year the writings of Euripides have been read and discussed by the club.

The Lowden prizes in Greek of $15 and $10 are given on the basis of a competitive examination held early in May. The examination covers the ground of the first two years' work in Greek.

LATIN LANGUAGE AND LITERATURE

PROFESSOR CURRIER; ASSISTANT PROFESSOR POTTER, ASSISTANT PROFESSOR CHASE (1901–2), MISS HUGHES, MISS EDDY, MISS PAINE

A. ELEMENTARY COURSES

1, (*2*). CICERO—Selected Orations. Miss HUGHES.
Mon., Wed., Fri.

3, (*4*). VERGIL—Æneid with a course in Mythology.
Mon., Wed., Fri.

The above courses are offered in the interest of students deficient in preparatory requirements.

5, (*6*). LIVY, CICERO, AND TERENCE — First semester: Livy, selections from Books I, XXI, and XXII. Second semester: Cicero, *De Senectute* or *De Amicitia*, or *Selected Letters*; Terence, *Phormio;* Outline of Roman Literature. Grammar, writing Latin, and sight reading during the year. Those who show marked proficiency in writing Latin during the first semester are allowed an option of easy Latin, Cicero and Aulus Gellius, to be read under the direction of the instructor during the rest of the year. Assistant Professor POTTER, Assistant Professor CHASE, 1901–2, and Miss HUGHES.

Throughout the year; Mon., Wed., Fri., at 10:00, 11:00, and 1:30.

7, (*8*). CICERO AND HORACE—Cicero, *Tusculan Disputations*. Horace, *Odes*, *Satires*, and *Epistles*. These courses are mainly occupied with the literary side of the authors studied. Professor CURRIER.

Prerequisite, course 5.

Mon., Wed., Fri., at 9:00. Throughout the year.

9, (*10*). PLINY AND TACITUS—Selected Letters of Pliny. Tacitus, *Germania* and *Agricola*. This course is principally literary and historical. As much attention is given to the Latinity of the Silver Age as is needful for the understanding and appreciation of the authors. Assistant Professor POTTER, Assistant Professor CHASE, 1901–2.

Prerequisite, course 5.

Tu., Th., at 9:00. Throughout the year.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

[11, (*12*). CICERO, QUINTILIAN, AND TACITUS—Cicero, *De Oratore*. Quintilian, Books X and XII. Tacitus, *De Oratoribus*. Particular attention will be paid to literary criticism as exemplified in these authors. Professor CURRIER.

Prerequisite, courses 7 or 9.]

Tu., Th., at 8:00; 1903–1904.

13, (*14*). TACITUS AND SENECA—Tacitus, selections from the Annals and Histories. Seneca *Morals and Letters*. Professor CURRIER.

Prerequisite, courses 7, 8 or 9, 10.

1902–1903; Tu., Th., at 8:00.

15. PLAUTUS—In this course the metres are carefully studied and some attention is given to the ante-classical forms and constructions; but as provision is made in other courses for a more systematic study of the language, the attention is directed mainly to the Roman stage, and to contemporary and later Roman playwrights. The *Captivi*, *Trinummus*, *Menæchmi*, and *Rudens* are read together with selected scenes from the *Amphitruo*, *Miles Gloriosus*, and *Pseudolus*. The analysis of several other plays is given in informal lectures. Open to students who have taken or are taking courses 11 or 13. Assistant Professor POTTER. (Assistant Professor CHASE, 1901–2.)

First semester, 1902; Mon., Wed., Fri.

16. LUCRETIUS AND CATULLUS—The aim is to study Lucretius's art rather than his philosophical system. All the more poetic passages in the *De Rerum Natura* are read. In this course, and also in courses 18-20, considerable attention is given to the structure of the verse, and to the reading of it. Catullus is studied particularly in his relation to his successors in lyric, epic, elegiac, and epigrammatic poetry. Assistant Professor POTTER, Assistant Professor CHASE, 1901–2.

Second semester, 1903; Mon., Wed., Fri.

[17. CICERO'S LETTERS—As students before taking this course will have acquired considerable facility in reading Latin, the attention will be directed to the importance of the letters as historical documents. A large number of letters will be studied, selected with reference to the light that they throw on the many sided character of the orator, and also on the social and political conditions that prevailed at Rome at the end of the Republican period. Open to students who have taken or

are taking course 11 or 13. Assistant Professor POTTER, Assistant Professor CHASE, 1901.

First semester; Mon., Wed., Fri.] *Not offered in 1902.*

[18. LUCAN, *Pharsalia;* SENECA, *Medea.*—The reading of the *Pharsalia* is supplemented with selections from Cæsar's *Civil War* and Suetonius's *Lives.* Lectures introductory to the *Medea* treat of the Roman tragic writers who preceded Seneca, and an effort is made to show the relation of the Roman to the Greek plays. Assistant Professor POTTER.

Second semester; Mon., Wed., Fri.] *Not offered in 1903.*

[19. ELEGIAC POETS — After a brief study of the Greek Elegiac poets the class will read the best elegies of Tibullus, Propertius, and Ovid. The aim of the course is to trace the history of classical elegiac poetry from Callinus to Ovid. Assistant Professor POTTER, Assistant Professor CHASE, 1901.

First semester; Mon., Wed., Fri.] *Not offered in 1902.*

[20. THE SATIRES OF JUVENAL; THE EPIGRAMS OF MARTIAL.—The course will include incidentally a study of the private life and amusements of the Romans as set forth in these poems. Assistant Professor POTTER, Assistant Professor CHASE, 1902.

Second semester; Mon., Wed., Fri.] *Not offered in 1903.*

[21, (*22*). COURSE IN CÆSAR AND VERGIL.—This course and the following are intended to meet the needs of prospective Latin teachers and others who wish to gain some familiarity with the methods of original research. The first semester is devoted to syntactical and historical studies covering Cæsar's *Gallic War* (seven books). The work of the second semester consists of literary studies covering Vergil's complete works, but most of the time is devoted to the Æneid.

Assistant Professor POTTER.]

Throughout the year; Tu., Th., 1903–04.

23, (*24*). CICERO'S CAREER AS AN ORATOR.—This course combines original historical investigation covering the period from the time of the Gracchi till the death of Cicero, with the study of the orations, all of which will be considered in chronological order. About thirty of the best speeches will be read by the class. The course includes a special study of the conspiracies of Catiline, based largely on Sallust, Asconius, and Cicero's Letters. Assistant Professor POTTER.

Prerequisite, course 17.

Throughout the year; Tu., Th., 1902–1903.

[25, (26). ROMAN ANTIQUITIES—A systematic study of private life and of legal and political antiquities. Assistant Professor CHASE, 1901–2.

Throughout the year; two hours a week at 2:30.]

27, (28). CICERO, LIVY, AND OVID—Sight reading of suitable selections. Professor CURRIER.

Throughout the year; one hour a week.

30. TEACHERS' COURSE—This course will combine theory, practice, and investigation. The members of the class will serve as assistant teachers in a beginning Latin class, and investigate assigned problems. It is intended for students who have had no experience in teaching Latin. Prerequisite, course 21 or 23, and general psychology. Assistant Professor POTTER.

Five times a week; three hours' credit; second semester.

C. COURSES PRIMARILY FOR GRADUATES

[31. EARLY LATIN—Metrical inscriptions and fragments of the poets. Assistant Professor POTTER.

First semester; Tu., Th.] 1903.

[32. PETRONIUS AND LATE LATIN—Apuleius's *Cupid and Psyche* and selections from the Christian Hymns. On the linguistic side considerable attention will be given to the language of the common people and its relation to the Roman tongues. Assistant Professor POTTER.

Second semester; Tu., Th.] 1904.

33, (34). HISTORICAL LATIN GRAMMAR ON THE SIDE OF SOUNDS AND INFLECTIONS—This course will be based on the reading of inscriptions selected for their linguistic interest and arranged chronologically from the earliest times to the seventh century, A. D. Each member of the class will be assigned some definite problem to investigate and report upon. Assistant Professor POTTER,

To be given 1902–1903.

35, (36). LATIN SYNTAX—Introduction to the study of historical syntax. Assistant Professor POTTER.

37, (38). SEMINARY IN ARCHÆOLOGY—For 1903 the subject will be the Topography and Archæology of Rome and the vicinity. Professor CURRIER.

A reading knowledge of German or French is essential.

The instructors of the Latin department meet once a week

throughout the year to read in course and discuss informally the entire works of some author or period. Graduate students in Latin will be invited to participate in these meetings.

The department is well supplied with mounted photographs and lantern slides for the illustration of lectures, and especially of the work of courses 25, and 37.

SANSKRIT

ASSISTANT PROFESSOR POTTER

The courses in Sanskrit are intended to afford a general introduction to Indo-European Comparative Grammar and to lay the foundation for future reading in the literature and philosophy of the ancient Hindus.

1. Sanskrit Grammar and the reading of easy selections from the Nala.

First semester; Tu., Th.

2. Introduction to the Veda. Lectures on Hindu history and literature.

Second semester; Tu., Th.

FRENCH LANGUAGE AND LITERATURE

PROFESSOR VAN STEENDEREN; MR. BUSH, MISS WILLIAMS, MISS HRUSKA

A. ELEMENTARY COURSES

1. FIRST YEAR COURSE—Elements of grammar with oral and written exercises to illustrate and apply grammatical rules. Pronunciation. Composition, translation, sight-reading. Grandgent, *Essentials of French Grammar*; Halévy, *L'Abbé Constantin*. Mr. BUSH, Miss WILLIAMS, Miss HRUSKA.

First semester, five divisions, daily. A sixth division in this course will be formed at the beginning of the second semester.

2. Continuation of Course 1. Grammar continued. Mérimée, *Colomba*, or *Quatre Contes;* Alphonse Daudet, *Tartarin de Tarascon*. Mr. BUSH, Miss WILLIAMS, Miss HRUSKA.

Second semester, five divisions, daily.

3, (4). FRENCH NOVELISTS OF THE XIXTH CENTURY—Systematic reading of works from Chateaubriand, Victor Hugo, Prosper Mérimée, Honoré de Balzac, Alphonse Daudet, Emile Zola, Pierre Loti.

This course, which must be taken in the second year of French, aims in the first place to impart ability to read French prose with fluency and to encourage the use of the French language in the class-room. In the second place it aims to give a clear insight into the principles of romanticism, realism, and naturalism, through lectures and the comparative study of such novels as *Les Misérables*, *Eugénie Grandet*, and *La Débacle*. Reaction from naturalism is discussed. And thirdly it aims to study the characteristics of French prose through the observation of words, idioms, phrase-construction, and style. Professor VAN STEENDEREN.

First and second semester, two divisions; Mon., Wed., Fri.

5. SYNTAX, COMPOSITION, AND CONVERSATION—A course in the principles of French syntax, aiming to impart ability in the writing and speaking of French on the basis of grammatical understanding. The course includes thorough training in the translation of English into French, and original expression in French, both oral and written. The members of the class will, moreover, be recommended to the American Committee on International Correspondence, which secures to each a correspondent in France. Bouvet, *French Composition;* Berlitz, *Méthode 2ème Livre.* It is recommended that this course be taken with course 3, (*4*). It is required of candidates for the Teacher's Certificate in French. Professor VAN STEENDEREN.

First semester; Tu., Thu.

6. Continuation of course 5. Free composition. Professor VAN STEENDEREN.

Second semester; Tu., Thu.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

[7, (*8*). TWELVE REPRESENTATIVE FRENCH DRAMAS — *Le Cid*, *Les Femmes savantes*, *Le Tartuffe*, *Athalie*, *Zaïre*, *Le Barbier de Séville*, *Hernani*, *Ruy Blas*, *La Question d'Argent*, *Bataille de dames*, *Le Monde on l'on s'ennuie*, *Cyrano de Bergerac* or *L'Aiglon*.

The subject of the French Drama is studied from the standpoint of historical sequence and organic development. Lectures. Reports on assigned topics. Mr. BUSH.]

First and second semester; Mon., Wed., Fri.

9. THE FRENCH NOVEL. This course, which is conducted on the seminary plan, begins with the consideration of the rela-

tion between the epic and the novel. The instructor analyses the plots of the *Chanson de Roland*, the *Chanson d'Aliscans*, the *Roman de Troie*, and some of the *Romans de la Table Ronde*. Reports are given on some of the *Fabliaux*, on the *Roman de Renart*, and the *Roman de la Rose*. Then the *Heptameron* and Rabelais' *Gargantua et Pantagruel* are briefly considered. Stress is laid on *L'Astrée* of Honoré d'Urfé and its influence on other novelists of the XVIIth century. The class reads Mme de la Fayette's *La Princesse de Clèves*, and reports are given on Fénelon's *Télémaque* and on novels by Le Sage, Marivaux, and Prévost, on *La Nouvelle Héloise*, and on *Paul et Virginie*. Professor VAN STEENDEREN.

First semester; Mon., Wed., Fri.

10. Continuation of course 9. The members of the class read and report on the principal novels and short stories of the XIXth century. Morillot's *Le Roman en France depuis 1610* will be used as a text-book. Professor VAN STEENDEREN.

Second semester; Mon., Wed., Fri.

Courses 7, 8 and 9, 10 are given in alternate years. Course 9, 10 will be given in 1902–03.

C. PRIMARILY FOR GRADUATES

11. FRENCH LITERATURE IN THE XVITH AND XVIITH CENTURIES. A lecture and reading course with the emphasis on the literature, life, and customs of the XVIIth century. Beginning with a few lectures on the fifteenth century, the course then takes up the spread of the Renaissance to the time of the writers of the Pléiade, whose literary theories and individual works are discussed in detail as the foundation of the literary development of the seventeenth century. Montaigne, Rabelais, writers of *Mémoires* and *Contes* will be taken up separately. The division and breaking down of the second *volée* of the Pléiade are followed to the reforming work of Malherbe. Finally the establishment of the *Hôtel de Rambouillet* and the confusion of the beginning of the seventeenth century down to the work of Corneille are considered. Mr. BUSH.

First semester; Mon., Wed.

12. Continuation of course 11. Beginning with Corneille, the history of the school of 1660 is traced through its representatives Boileau, Racine, and Molière. The theories of classicism,

together with the characteristics and the influence of *Préciosité* are studied. The course includes the study of works of Descartes, Pascal, Bossuet, La Fontaine, La Rochefoucauld, Fénelon, and others. Mr. BUSH.

Second semester; Mon., Wed.

[13. FRENCH LITERATURE IN THE XVIIITH AND XIXTH CENTURIES—The quarrel of the Ancients and the Moderns. Gradual breaking down of the theories of classicism. Literature subservient to the social relations. Social character of the *Lettres persanes* and *L'Esprit des lois*. Influence of the Salons. Sensibility: *Alzire*, *Zaïre*, *Manon Lescaut*, *La nouvelle Héloise*, *Paul et Virginie*. Influence of England. Idea of Progress. Literature and Science. Buffon. The Encyclopedists. Naturalism of Rousseau and Diderot. Growth of Individualism. Short revival of classicism. André Chénier. Chateaubriand, Mme de Staël, and the beginnings of the romantic school. Professor VAN STEENDEREN.

First semester; Tu., Thu.]

[14. Continuation of Course 13. The study of the romantic poetry, drama, and novel. Literary cosmopolitism. Local color. Individualism. Sociology and history. Realism. Philosophy and criticism. The Parnassian school of poetry. Naturalism. The social drama. The symbolists. Professor VAN STEENDEREN.

Second semester; Tu., Thu.]

Courses 11, 12 and 13, 14 are given in alternate years. Course 11, 12 will be given in 1902–3.

15. OLD FRENCH—A reading course in Old French verse and prose with the emphasis on the philological aspect of the subject. Léon Gautier's *La Chanson de Roland;* Clédat's *Chrestomathie du moyen âge*, and works of reference in the library. Professor VAN STEENDEREN.

First semester; Tu., Thu.

16. Continuation of course 15. Professor VAN STEENDEREN.

Second semester; Tu., Thu.

For special (teachers') certificates in French see the regulations pertaining to them on page 74. The courses required are 1, 2; 3, 4; 5, 6 and a choice of *at least* five hours a week for a year from the other courses.

SPANISH LANGUAGE

1. FIRST YEAR COURSE — Elements of Spanish grammar with exercises to illustrate and apply grammatical rules. Garner, *Spanish Grammar;* Padre Isla: *Historia de Gil Blas de Santillana.* Professor VAN STEENDEREN.

First semester; Mon., Wed., Fri.

2. Continuation of course 1. Grammar continued. Galdos, *Dona Perfecta*; Moratin: *El si de las ninas.* Professor VAN STEENDEREN.

Second semester; Mon., Wed., Fri.

ITALIAN LANGUAGE

1. FIRST YEAR COURSE — This course aims as far as possible to give a good reading knowledge of the Italian language, combined with some knowledge of the literature. During the first half year Grandgent's *Italian Grammar* will be studied and the reading will consist of some of the shorter works of Modern Novelists. MR. BUSH.

First semester; Mon., Wed., Fri.

2. Continuation of Course 1. Scartazzini, *La Divina Commedia di Dante Alighieri*, in part. Selections from works of other great Italian classics. Lectures will be given in connection with the reading. MR. BUSH.

Second semester; Mon., Wed., Fri.

GERMAN LANGUAGE AND LITERATURE

PROFESSOR WILSON; ASSISTANT PROFESSORS STURM, EASTMAN, AND FLOM, AND MR. C. A. WILLIAMS

In the instruction in the German language the first year is spent in laying a broad foundation for the future work. At the beginning of the second year it is expected that students will be able to read the literature with some degree of appreciation, and from this time on the ability to understand and to appreciate the great masterpieces of German literature is the main object in view; at the same time, however, the origin and history of words and the relation that the German language bears to the English tongue, are studied and explained. Sight translation, translating at hearing, writing from dictation, and

conversation as means to a proper *Sprachgefuehl*, form a part of the work.

Courses 1, (2), 3, (4), 5, (6), and 7, (8), represent first year work, second year work, third year work, and fourth year work respectively, and must be taken in the order of the numerals. Courses 9 to 20 are advanced courses, and may be taken in accordance with the regulations stated later, but applicants for any of these courses are advised to consult the instructors. All the courses in German are given every year except as otherwise indicated.

A. COURSES FOR UNDERGRADUATES

1, (2). GRAMMAR AND READING—Thomas's *Practical German Grammar*, with constant practice in writing German. The reading consists of easy plays and tales. These courses represent first year work. Seven sections. Assistant Professors STURM, EASTMAN, and FLOM, and MR. C. A. WILLIAMS.

Throughout the year; five times a week.

3, (4). LESSING, SCHILLER, GOETHE, AND FREYTAG—Selections from the works of the authors named, with composition. Courses 3 and 4 represent second year work. Four sections. Professor WILSON, and Assistant Professors STURM and EASTMAN.

Throughout the year; Mon., Wed., Fri.

5. THE GERMAN NOVEL.—Some such work as Scheffel's *Ekkehard*, or Freytag's *Soll und Haben* is read and discussed as a piece of literary art. There is an inquiry into the nature of the German novel, with assigned reading and reports on the development of the novel in Germany. Course 5 represents third year work. Professor WILSON.

First semester; Mon., Wed., Fri., at 11:00.

6. GERMAN LYRICS—This course is intended to give a general idea of the historical development of the German lyric from the sixteenth century to the present. There are lectures on German verse with special reference to the lyric poets. Buchheim's *Deutsche Lyrik*, or von Klenze's *Deutsche Gedichte* is read by the class. Course 6 represents third year work. Professor WILSON.

Second semester; Mon., Wed., Fri., at 11:00.

7. FAUST—Goethe's *Faust, Parts I and II*. The main object of this course is to help the student to the enjoyment of

Faust as poetry. Careful attention is given to its artistic character as a piece of literature possessing unity. Course 7 represents fourth year work. Professor WILSON.

First semester; Tu., Th., at 11:00.

8. HISTORY OF GERMAN LITERATURE—This course gives a general view of the development of German literature from the earliest times to the present, special attention being paid to the two classic periods of the twelfth and eighteenth centuries. Francke's *History of German Literature as Determined by Social Forces* is used as guide, but this is supplemented by reports on assigned reading by the students and by lectures by the instructor. Course 8 represents fourth year work. Professor WILSON.

Second semester; Tu., Th., at 11:00.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

9. GERMAN SEMINARY — For the study and discussion of the works of special periods, of literary tendencies, or of other special subjects in the history of German literature. The nature of the work is indicated by the topics that have been studied in previous years, some of which are, Goethe's Youth; Goethe's Period of Classical Sympathies; Literary Cooperation of Goethe and Schiller; Lessing's Life and Works; Lessing's Attitude toward the ancient Classics; Schiller's *Wallenstein;* Heine's Life and Works. Each member of the Seminar undertakes, under the personal direction of the instructor, the examination of some special phase of the general subject, and makes regular reports upon the results obtained. As the subject varies from year to year, students may elect the course in succession without duplication. Professor WILSON.

First semester; Tu., Th., at 9:00.

10. GERMAN SEMINARY— A continuation of course 9. The work is conducted in the same manner, but a new subject may be taken up. Professor WILSON.

Second semester; Tu., Th., at 9:00.

11. MIDDLE HIGH GERMAN — Bachmann's *Mittelhochdeutsches Lesebuch* and Paul's *Mittelhochdeutsche Grammatik.* Includes a rapid survey of Middle High German forms, a comparative study of Middle High German and New High German syntax, and yields incidentally through translation into New High German excellent practice in composition. The reading

of this semester is largely epic poetry, and is represented by selections from the *Nibelungenlied*, *Gudrun*, *Rosengarten*, *Reinhart Fuchs*, *Alexanderlied*, and from Hartmann von Aue, Wolfram von Eschenbach, and Gottfried von Strassburg. Professor WILSON.

First semester; Tu., Th., at 10:00.

12. MIDDLE HIGH GERMAN—Course 11 is a prerequisite. The reading consists of lyric and didactic poetry and of prose. The larger part of the time, however, is devoted to the lyrics of Walther von der Vogelweide. Professor WILSON.

Second semester; Tu., Th., at 10:00.

13. OLD HIGH GERMAN PROSE—Attention is given to the historical aspect of the subject. The work is based upon Braune's *Althochdeutsche Grammatik*, Braune's *Althochdeutsches Lesebuch*, Streitberg's *Urgermanische Grammatik*, and Ennecerus's photo-lithographic facsimiles: *Die aeltesten deutschen Sprach-Denkmaeler*. The reading of this semester consists of selections from Tatian's *Evangelienharmonie*, *Benediktiner Regel*, *Isidor*, Notker's translation of *Boethius de consolatione philosophiæ*, and the *Trierer capitulare*. Assistant Professor EASTMAN.

First semester, twice a week; time to be arranged.

Courses 13 and 14 alternate with courses 15 and 16, and may be expected in the year 1902–1903.

14. OLD HIGH GERMAN POETRY—A continuation of course 13, by which it must be preceded. The following are read: *Hildebrandslied*, *Muspilli*, *Wessobrunner Gebet*, *Merseburger Zauberspruecche*, *Ludwigslied*, and selections from Otfrid's *Evangelienbuch*. Assistant Professor EASTMAN.

Second semester, twice a week; time to be arranged.

[15. OLD LOW GERMAN (Old Saxon)—Introduction to Old Saxon grammar and interpretation of the *Heliand*. Holthausen's *Altsaechsisches Elementarbuch* and Behaghel's edition of the *Heliand*. Assistant Professor EASTMAN.

First semester, twice a week; time to be arranged.]

Courses 15 and 16 were given in the year 1901–1902, and may be expected again in 1903–1904.

[16. OLD LOW GERMAN (Old Saxon)—A continuation of course 15, which is a prerequisite. Rapid reading of the *Heliand* and of the fragment of the Old Saxon *Genesis* (Braune's edition). Assistant Professor EASTMAN.

Second semester, twice a week; time to be arranged.]

[17. THE GERMAN ROMANTIC MOVEMENT—Opened with lectures on the general subject, and then follow lectures on the life and earlier works of Tieck, with assigned readings to each student who reports to the class an outline of the ground covered and the results of his study. The works of the Schlegels are taken up in the same manner. Novalis's *Heinrich von Ofterdingen*, *Hymnen an die Nacht*, and *Geistliche Lieder* are read and discussed. After this there are assigned readings in the works of Brentano, Arnim, Kleist, Eichendorff, and Hoffmann. Assistant Professor STURM.

First semester, two hours a week; time to be arranged.]

Courses 17 and 18 were given in the year 1901–1902, and may be expected again in 1903–1904.

[18. THE GERMAN ROMANTIC MOVEMENT—A continuation of course 17, by which it must be preceded. These courses are closed with lectures giving a survey of the movement as a whole, with special reference to its social and literary aspects. Assistant Professor STURM.

Second semester, two hours a week; time to be arranged.]

19. PHONETICS—The principles of sound-formation and sound-change, followed by a detailed study of the phonology of German. This part of the work is based upon Hempl's *German Orthography and Phonology*. Designed to furnish a foundation for work in philology and a practical preparation for those who intend to teach. Assistant Professor STURM.

First semester, two hours a week; time to be arranged.

The course is offered in alternate years, and may be expected in the year 1902–1903.

20. GERMAN SYNTAX—The syntax of New High German is studied from the historical and genetic point of view. The works of Erdmann, Behaghel, and Wunderlich are used. Assistant Professor STURM.

Second semester, two hours a week; time to be arranged.

The course is offered in alternate years, and may be expected in the year 1902–1903.

SPECIAL CERTIFICATES IN GERMAN

Special certificates of scholarship in German are granted on or after graduation on conditions set forth elsewhere in this catalogue. The *minimum* amount of work required for admission to examination for such a certificate is represented by courses 1 to 6, and four courses chosen from 7 to 20.

SCANDINAVIAN LANGUAGES AND LITERATURES

ASSISTANT PROFESSOR FLOM

In the department of Scandinavian it is the aim to give equal attention to the literature and philology of the Northern languages. The courses will be given strictly as outlined below, though if there should be a sufficient demand for some course not scheduled, a class may be formed. Course 1 is intended for those students who have no previous knowledge of Scandinavian. It is expected that this course will give the student such a thorough reading knowledge of modern Norse as shall enable him to read the modern literature with facility. Courses are offered to suit the needs of students of Scandinavian parentage who have a fair knowledge of a Scandinavian language, but wish to pursue in class a more systematic study of the literature. For such students three courses are offered: one in modern Norse literature 7, (*8*), one in Danish literature 5, (*6*), and one in Swedish literature 3, (*4*). The last will be preceded by a short course in Swedish Grammar. Courses under B are intended especially for graduates, but may be taken by advanced students of sufficient preparation. In these courses, (excepting course 11, (*12*) and 15, (*16*), as well as those coming under C, open to graduates only, the linguistic side of the study is stressed.

A. ELEMENTARY COURSES

1, (*2*). NORSE—Elementary Course—Groth's *Dano-Norwegian Grammar*, followed by class reading of Björnson's *Smaastykker*, *En Glad Gut*, and *Synnøve Solbakken*, Jonas Lie's *Fortællinger og Skildringer fra Norge*, and Ibsen's *Et Dukkehjem*. Exercises in Composition based on Platon's *Exemplarsamling*. This course will also serve as an introduction to Norse literature. May be taken by graduate students as part of requirements for a degree.

Three times a week, throughout the year; Mon., and Wed., at 11:10, and Th., at 2:30. Hours may be arranged to suit those concerned.

3, (*4*). SWEDISH LITERATURE OF THE XIXTH CENTURY, with an introductory course in Swedish Grammar. Reading in class of Tegnér's *Frithiofs Saga*, Runeberg's *Fänrik Ståls Sägner*, and Selma Lagerlöf's *Drottningar i Kungahälla* and

Legender, with assigned collateral work. May be taken by graduate students as part of requirements for a degree.

Two hours a week. Given in 1901–1902.

5, (*6*). DANISH LITERATURE — First semester: Two comedies from Holberg, Oehlenschlæger's *Axel og Valborg*, *Hakon Jarl*, and *Aladdin*. Second Semester: Hertz's *Svend Dyrings Huus* and selections from Grundtvig, Hauch, and Hostrup. Lectures. Prerequisite, course 1 or an equivalent.

Either course 3, (*4*) *or course* 5, (*6*) *will be given in 1902–1903, but not both courses.*

Two hours a week.

7, (*8*). NORSE LITERATURE SINCE 1814 — Lectures and class reading of masterpieces. First semester: Björnson's *Arne* and *En Fallit*. Collateral reading: Kielland's *Skipper Worse*. Second semester: Ibsen's *Brand*, *Peer Gynt*, and *Samfundets Støtter*. Collateral: *Kongsemnerne*, and Boyeson's *A Commentary on the Writings of Henrik Ibsen*.

Two hours a week; Tu. and Th., at 11:10. May be given in 1902–1903. In place of this course was given in 1901–1902 a course in Advanced Composition and Conversation together with reading of Lie's *Den Fremsynte*, Holberg's *Erasmus Montanus* and Ibsen's *Brand*. Reference, Olson's *Grammar and Reader*.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

9, (*10*). OLD NORSE AND OLD ICELANDIC — Elementary course. Lectures and recitations. The aim of this course is to equip the student with a good vocabulary, and to acquaint him with the peculiarities of Old Norse phonology, inflexion, and syntax, so as to enable him to read the old prose literature and to use the language for the purpose of comparative study within the Germanic group of languages. Lectures on the relation of Old Norse to East and West Germanic. Sweet's *Icelandic Primer* will be taken first and this will be followed by Kahle's *Altisländisches Elementarbuch*. Phonological exercises in Old Norse, taken up comparatively, will form a part of the work. In the Spring *Gunnlaugssaga Ormstungu* (ed. Mogk.) and *Fridthjofs Saga* (ed. Larssen) will be read.

Throughout the year; two hours a week.

11, (*12*). OLD ICELANDIC PROSE LITERATURE — The *Laxdælasaga* in the edition of Kålund will be read the first semes-

ter. The second semester will be devoted to a careful study of the *Völsungasaga* along with which parts of the Old Norse *Didrekssaga* will be read. It is desirable for this course, though not necessary, that the student should have a general knowledge of the Niebelungenlied.

Throughout the year; two hours a week.

This course or course 15, (*16*) *will be given in 1902–1903.*

14. HISTORY OF THE SCANDINAVIAN LANGUAGES—Lectures in connection with Noreen's *Geschichte der nordischen Sprachen* in Paul's "Grundriss der germanischen Philologie." Although this course is elementary and may be taken without any previous knowledge of Germanic philology, a knowledge of one of the Scandinavian languages and of German and Gothic is desirable. Course 9, (*10*) should precede.

Second semester; two hours a week.

This course will be given in 1903.

C. COURSES PRIMARILY FOR GRADUATES

15, (*16*). OLD NORSE. THE ELDER EDDA—This course may be taken only by those who have mastered the elements of the language. The fall term will be given to the reading and interpretion of the mythological lays of the Elder Edda. In the winter and spring terms the heroic lays will be taken up, with a study of Eddic metre. Lectures on Edda criticism. Jonsson's *Eddalieder* will be used, together with Gering's *Glossar zu den Liedern der Edda.* In connection with this course lectures will be given on Old Norse literature. Prerequisite, course 9, (*10*).

Two hours a week, given in 1902–1903.

[17, (*18*). OLD DANISH AND OLD SWEDISH—Lectures and texts. This course will begin with lectures on the relation of East to West Scandinavian and on early dialectal differentiation in Old Danish. First Semester: Old Danish, Brandt's *Gammeldansk Læsebog*, and Dahlerup's *Det danske Sprogs Historie.* Second semester: Old Swedish, Noreen's *Altschwedisches Lesebuch.* Prerequisite, courses 1 (*2*), 3 (*4*), 9 (*10*).

Throughout the year; two hours a week.]

Not given in 1902–1903.

19, (*20*). SCANDINAVIAN INFLUENCE ON ENGLISH—Introductory lectures on early Norse and Danish settlements will be followed by a study of the characteristic of Old Northumbrian

as differing from West Saxon. Methods of investigation, loan-word tests, Scandinavian elements in Old and Middle English and Modern English dialects. The dialectal provenience of the loan-words. A part of the spring term will be given to the study of English influence on Scandinavian, especially Old Norse, Modern Norse, and Danish. Prerequisite, a knowledge of German, Old Norse, and Old English.

Throughout the year; two hours a week. Not given in 1902–1903.

In addition to above courses any of the courses intended primarily for under-graduates may be taken by graduate students as part of the requirements for a degree.

ENGLISH

PROFESSOR ANSLEY; ASSISTANT PROFESSOR YOUNG, DR. HAGEN, MR. BREWER, MR. SLOAN, MR. COOPER, MR. HUNT

Candidates for baccalaureate degrees are required to complete courses 1 and 21. Six divisions of course 1 begin with the first semester, and one division begins with the second semester. The six divisions of course 21 begin with the first semester.

Unless by special arrangement at the beginning, credit in any course is given only upon satisfactory completion of that course. This rule applies to courses which continue throughout the year as well as to semester courses.

Special certificates of scholarship in English are granted upon conditions explained on page 74. Information as to acceptable combinations of courses will be given upon request.

(1) COMPOSITION AND RHETORIC

1, (*a*). CONSTRUCTIVE RHETORIC—Practice in the construction of effective English prose, with observation of the principles involved. Lectures, criticism of written exercises, and studies in the work of representative modern writers. Required of all freshmen. Mr. SLOAN, Mr. COOPER, and Mr. HUNT.

Throughout the year; two hours a week.

3. THE ESSAY—Studies in the structure of the modern essay, based chiefly upon the work of Macaulay, De Quincey,

Carlyle, Lamb, and Arnold. The theory of exposition. Open to students who have completed course 1. Mr. SLOAN.

First semester; two hours a week.

4. THE ESSAY—Practice in expository writing and in criticism of essays. Should be preceded by course 3. Mr. SLOAN.

Second semester; two hours a week.

7. THE SHORT STORY—Studies in descriptive and narrative prose, and in the structure of the short story. Typical stories by Poe, Hawthorne, and their successors are considered in detail. Admission only by consent of the instructor. Mr. SLOAN.

First semester; two hours a week.

8. THE SHORT STORY—Practice in descriptive and narrative writing, the short story being the form selected. Criticism by students and instructor. Admission, by consent of the instructor. Mr. SLOAN.

Second semester; two hours a week.

15. THE NEWSPAPER—Lectures upon some details in the work of newspaper making, with practice in writing for the press. What news is, and how it should be put in form for publication; the writing of editorials; the review of books and the drama; proof reading; the business department. Mr. BREWER.

First semester; two hours a week.

16. THE BOOK — Studies in the making and the care of books. Manuscripts and early libraries; the invention of movable types; the work of the best printers, from Gutenberg to William Morris; modern methods in printing and publishing. Mr. BREWER.

Second semester; two hours a week.

(2). LITERATURE

21, (*22*). ENGLISH LITERATURE—The development of English literature from Chaucer to Browning. Typical works of representative writers are studied as carefully as time permits; and an attempt is made to recognize the more important phases in the evolution of English verse and prose. The work of students in this course is commonly presented in writing, and attention is given to form as well as to substance. Required of all sophomores. Professor ANSLEY, MR. SLOAN, and MR. COOPER.

Throughout the year; three hours a week.

23. AMERICAN LITERATURE (PROSE) — A study of representative prose writers of America, including Irving, Cooper, Poe, Hawthorne, Emerson, Lowell, and Holmes. Dr. HAGEN.
First semester; two hours a week.

24. AMERICAN LITERATURE (POETRY)—A study of representative poets of America, including Bryant, Poe, Longfellow, Whittier, Lowell, Holmes, and Whitman. Dr. HAGEN.
Second semester; two hours a week.

[29. THE ENGLISH DRAMA BEFORE SHAKESPEARE—The selections in Manly's *Specimens of the Pre-Shakespearean Drama* are made the basis of this course. In studying the Miracle Plays, each play is compared with its correspondent in the other cycles or with corresponding isolated plays. The Moralities and the Interludes are studied in their relations to earlier and later dramatic forms. The early renaissance plays give occasion for a study of classical influence, special attention being given to Seneca.]
Not offered in 1902–1903.

31, (*32*). SHAKESPEARE—Some elements of literary art exemplified in the plays of Shakespeare. Three representative tragedies are studied in detail. Professor ANSLEY.
Throughout the year; three hours a week.

33, (*34*). SHAKESPEARE (Second Year)—Studies in representative Histories, Comedies, and Tragedies. This course must be preceded by course 11, and students must obtain the consent of the instructor before scheduling. Professor ANSLEY.
Throughout the year; two hours a week.

38. ENGLISH AND SCOTTISH POPULAR BALLADS—Lectures on the origin and nature of ballad poetry, with reading and interpretation of selected ballads. The text used is Gummere's *Old English Ballads*. Dr. HAGEN.
Second semester; two hours a week.

41. THE BIBLE—A study of the English Bible as literature. Assistant Professor YOUNG.
First semester; three hours a week.

44. MILTON—The life and the poetical works of John Milton. Assistant Professor YOUNG.
Second semester; three hours a week.

[49. THE ROMANTIC MOVEMENT.]
Not offered in 1902–1903.

[55. VICTORIAN LITERATURE.]
Not offered in 1902–1903.

61. TENNYSON — The life and the works of Alfred Tennyson. Assistant Professor YOUNG.
First semester; three hours a week.

[63. BROWNING.]
Not offered in 1902–1903.

68. TEACHERS' COURSE—A course of lectures upon work in English in high schools. For students who are preparing to become teachers of English. Assistant Professor YOUNG.
Second semester; three hours a week.

69. LITERARY LANDMARKS OF MEDIÆVAL ENGLAND—A course of public evening lectures, illustrated by the stereopticon. Ecclesiastical and other buildings in England from Pre-Norman to Elizabethan times are described and their relations to literature and other arts are considered. Credit is not given for this course, and registration is not required. Dr. GILCHRIST.
First semester; one hour a week.

(3) PHILOLOGY

73. HISTORICAL ENGLISH GRAMMAR — Lectures, reports, and discussions. The main topics in the history of the English language are considered: sources of the vocabulary; characteristics of native and foreign elements; development in the meaning of words; changes in pronunciation; the history of gender and of declensions; the influence of analogy, etc. Dr. HAGEN.
First semester; two hours a week.

75, (*76*). MIDDLE ENGLISH — A brief outline of Middle English grammar with readings in Chaucer's *Canterbury Tales*, Langland's *Piers the Plowman*, and other selections. Dr. HAGEN.
Throughout the year; two hours a week.

79, (*80*). OLD ENGLISH — An elementary course in Old English grammar, with readings in prose and poetry. Dr. HAGEN.
Throughout the year; three hours a week.

[81. ADVANCED OLD ENGLISH—In this course *Beowulf* is studied and the chief problems in *Beowulf* criticism are con-

sidered: the growth of the epic and its present form; its historical and mythical elements; its original home, etc. Dr. HAGEN.]

Not offered in 1902–1903.

[85. ANGLO-SAXON LAW AND CUSTOMS.]

Not offered in 1902–1903.

87, (*88*). GOTHIC — An introduction to the Gothic language. This is a course in the comparative study of Gothic phonology, morphology, and syntax, with constant reference to other Germanic dialects. The following books are used: Wright, *A Primer of the Gothic Language*, second edition, Oxford, 1900; Stamm-Heyne, *Ulfilas*, 9 Aufl., Paderborn, 1896; Uhlenbeck, *Etymologisches Wörterbuch der gotischen Sprache*, 2 Aufl., Amsterdam, 1900; Streitberg, *Urgermanische Grammatik*, Heidelberg, 1896. Open to students who have a knowledge of Old English or of any other early Germanic dialect. Dr. HAGEN.

Throughout the year; two hours a week.

PUBLIC SPEAKING

PROFESSOR GORDON; MISS EVERTS

The courses in this subject naturally divide themselves into two lines of work, one line looking to debate or oratory as an end, and the other to the vocal interpretation of literature as an end. Course 1, (*2*) is fundamental to both lines of work. No student will be admitted to advanced courses of work who has not taken or is not taking course 1, (*2*) or its equivalent. Students desiring to study debate and oratory should pursue courses 1, 5, 7, 9, and 20. Courses 1, 3, are designed for those students who wish to study the vocal interpretation of literature. Course 8 is designed for students desiring to pursue special lines of study upon approved topics in debate and oratory.

A. ELEMENTARY WORK

1, (*2*). EXPRESSION IN VOICE AND ACTION—This course is general, seeking to prepare the student in voice and body for the work of public speaking and reading. Each student is examined with reference to his individual needs, and an effort is made to adapt the work to such needs. This course is open to Sophomores, Juniors, and Seniors. Miss EVERTS.

Throughout the year; two hours.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

3, (*4*). LITERARY INTERPRETATION—The lyric, epic, dramatic, and oratoric forms are studied for vocal expression. Professor GORDON, or Miss EVERTS.

Throughout the year; two hours.

5, (*6*). PUBLIC ADDRESS—The preparation and presentation of an argument as to preliminary reading, structure, evidence, briefing, style, and delivery, are carefully developed. The forms of oratory are studied, and one or more illustrated by the work of the student. Professor GORDON.

Throughout the year; three hours.

7, (*8*). DEBATE—This course seeks to develop the handling of refutation in the preparation of briefs and forensics and actual debate. Courses 5 and 7 are the same in the first semester. Those who have taken either as a whole can schedule for the latter half of the other in the second semester. Professor GORDON.

Throughout the year; two hours.

9. ORATORY—Takes up the problems of the audience, the style and atmosphere of the address, and the function of persuasion in speaking. Professor GORDON.

First semester; two hours.

Compare also the course in Greek Oratory, Greek 5.

11, (*12*). THE FUNCTION OF IMAGINATION AND DRAMATIC INSTINCT IN EXPRESSION—This is of especial value to those who expect to teach. Professor GORDON and Miss EVERTS.

Throughout the year; one hour.

13, (*14*). SHAKESPEARE—A play is studied from the standpoint of vocal expression. Professor GORDON and Miss EVERTS.

Throughout the year; one hour.

15. DEBATE AND ORATORY—This course is designed for students desiring special work on selected topics for study and research preparatory to public presentation. Students may schedule for this course at the opening of the first or the second semester. Professor GORDON.

First or second semester; two hours.

Compare also Economics 3.

16. EXTEMPORE SPEAKING—Practical work in the develop-

ment of the forms of discourse in actual speaking. This course is open only to men. Professor GORDON.

Second semester; two hours.

18. VOCAL EXPRESSION—Practical work in the development of voice and body through vocal interpretation of good literature. This course is open only to women. Miss EVERTS.

Second semester; two hours.

C. COURSE PRIMARILY FOR GRADUATES

19, (*20*). HISTORY OF ORATORY—A course designed for special research work by graduate students. Professor GORDON.

HISTORY

PROFESSOR WILCOX; ASSISTANT PROFESSOR PLUM

A. ELEMENTARY COURSES

1. HISTORY OF GREECE—Text-book, lectures, and assignments. This is primarily a course in methods of historical study in which the history of Greece is taken for practical illustration. This course is intended for first year students. Assistant Professor PLUM.

First semester; two hours a week.

An advanced course in Greek History is offered as Greek 21.

2. POLITICAL HISTORY OF ROME—Text-book and lectures. This course is a study of the constitutional history of the Republic, the organization of the provincial system, the legal administration and the constitutional monarchy down to the third century of the Christian era. This course also is designed for first year students. Assistant Professor PLUM.

Second semester; two hours a week.

3. HISTORY OF FRANCE—Text-book and lectures. This course is an outline history of France to 1789. It consists of a study of the monarchical institutions of France, the relation of France to the papal system and to the growth of general European civilization. The course is primarily designed for Sophomores. Assistant Professor PLUM.

First semester; two hours a week.

4. HISTORY OF GERMANY—Text-book and lectures. The topics under discussion in this course are the organization of the German Kingdom and the Holy Roman Empire, the strug-

gle with the Church, the relation to the Protestant Revolution and the development under the House of Hapsburg. This course also is designed for Sophomores. Assistant Professor PLUM.

Second semester; two hours a week.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

5. THE RENAISSANCE AND THE PROTESTANT REVOLUTION IN EUROPE—This course is intended for those students who wish to do specialized work in European history. It consists of special assignments and lectures. The course includes a summary of the Renaissance movement, a study of the general European situation at the close of the sixteenth century, and an analysis of the factors in the Protestant movement to the Thirty Years War. Assistant Professor PLUM.

First semester; two hours a week.

6. THE DEVELOPMENT OF ABSOLUTISM IN EUROPE—This course consists of special assignments and lectures. It is a consideration of the rise of Absolutism in France under Louis XIV, and of the influence of this fact in Europe at large. Assistant Professor PLUM.

Second semester; two hours a week.

7. THE HISTORY OF EARLY AND MEDIÆVAL ENGLAND—This course consists of topical analyses, special assignments, and lectures. It is an outline study of English History from the beginning of English national life to the close of the War of the Roses. The central theme is the development of English political institutions. The social, economic, literary, and religious life of the people is studied in its relation to the political development of England. Professor WILCOX.

First semester; three hours a week.

8. THE HISTORY OF ENGLAND UNDER THE TUDORS AND STUARTS—Topical analyses and lectures. The course covers the History of England from the end of the fifteenth century to the opening of the eighteenth. Special attention is given to the outworking of those complex forces of national life which have made England the foremost body politic in the modern states-system of Europe. Professor WILCOX.

Second semester; three hours a week.

9. THE DEVELOPMENT OF THE CONSTITUTION OF THE UNITED STATES—This course is a series of lectures to advanced

students. The lectures aim to present the various steps which led to the establishment of the Constitution of the United States in 1789. The struggle between the states of Europe for domination in America, the reasons for the English victory and the growth of the movement for independence constitute the subject-matter under consideration. Professor WILCOX.

First semester; three hours a week.

10. THE HISTORY OF THE UNITED STATES UNDER THE CONSTITUTION—This course consists of lectures on the development of national political life under the Constitution from its establishment in 1789 to the outbreak of the Civil War. Professor WILCOX.

Second semester; three hours a week.

11. THE HISTORY OF EUROPE IN THE NINETEENTH CENTURY—This is a lecture course designed for advanced students in European History. The lectures aim to present the various lines of political evolution which have produced the Europe of to-day. The period covered extends from the Congress of Vienna in 1815 to the present day. Professor WILCOX.

First semester; two hours a week.

12. ENGLAND UNDER THE HOUSE OF HANOVER — This course has never been offered in the University. It is a lecture course covering the last two centuries of English development. It is intended for those students who have already taken other work in English History and who are acquainted with the general course of European History. Professor WILCOX.

Second semester; two hours a week.

C. COURSES OPEN TO GRADUATES ONLY

13. SEMINARY IN UNITED STATES HISTORY — This is a course of special research in some particular field of United States History. The aim is to develop methods of independent investigation as well as to gain an exhaustive knowledge of some one phase of our national life. In exceptional cases undergraduates of unusual preparation are admitted to this course. Professor WILCOX.

Two hours, once a week, throughout the year.

15. SEMINARY IN EARLY ENGLISH INSTITUTIONS — This course is open only to graduates of exceptional ability for the work of investigation. A good knowledge of English and Continental History is an indispensable prerequisite. The work of

research is designed to develop individual power of investigation as well as to consider the ground-work of English political life. The course consists of a study of the political institutions of the English people prior to the Norman Conquest. Professor WILCOX.

Two hours, once a week, throughout the year.

SOCIOLOGY

PROFESSOR LOOS; ASSISTANT PROFESSOR PATTERSON, MR. CADY

B. COURSES FOR GRADUATES AND UNDERGRADUATES

1. GENERAL SOCIOLOGY, PART I—Social structure and growth. A study of the primary factors and forces of social phenomena, with introductory lectures on anthropology and ethnology, followed by a systematic examination of the genesis of social institutions, gentile and civic. The course closes with a brief review of social theory from Plato to Spencer. Professor LOOS.

First semester; Mon., Wed., Fri., at 9:00.

2. GENERAL SOCIOLOGY, PART II—Social Amelioration. (1) The general theory of social amelioration: police, sanitation, charities, correction, public utilities, and education. (2) Municipal administration, dealing with the social and economic problems of modern cities. Professor LOOS.

Second semester; Mon., Wed., Fri., at 9:00.

3. THEORY AND TECHNIQUE OF STATISTICS—*See Political Economy 13.* Assistant Professor PATTERSON.

First semester; Mon., Wed., Fri., at 8:00.

4. SOCIAL STATISTICS — Population in its social aspects with special reference to modern cities, tenement house conditions, education, crime, and income. *Compare Political Economy 14.* Assistant Professor PATTERSON.

Second semester; Mon., at 8:00 a. m.

5. DOMESTIC INSTITUTIONS—The origins of marriage and the family; evolutionary progress of types; forces leading to the survival of the monogamic type; economic and utilitarian bases of domestic ethics; present industrial dangers to domestic foundations; the problem of divorce. Mr. CADY.

(*Given in 1901-2 as part of Sociology 1.*)

6. CHARITIES AND CORRECTION—Criminology and penology; pauperism and methods of relief—institutional care of dependents and defectives; philanthropic financiering—social settlements. Mr. CADY.

(*Given in 1902 as part of Sociology 2.*)

7. INTERNATIONAL LAW—The nature and sources of international law; the rules of peace and of war; the conflict of laws. For this course the College of Law allows credit to those who are registered in the combined course of the College of Liberal Arts and the College of Law. For course on commerce and the consular service see Political Economy 12. Professor LOOS.

First semester; Tu., Th., at 10:00.

8. INTRODUCTION TO POLITICAL PHILOSOPHY—Lectures on the development of Political Philosophy and the elements of legal history. The class will read Plato's Republic and Laws, Aristotle's Politics, Machiavelli's Prince, Hobbes's Leviathan, and other selections. Professor LOOS.

Second semester; Tu., Th., at 10:00.

9. THE DISTRIBUTION OF WEALTH—*See Political Economy 19.* Professor LOOS.

First semester; Tu., Th., at 11:00.

10. SOCIALISM AND CONTEMPORARY SOCIAL LEGISLATION—A critical examination of contemporary socialism and current tendencies in legislation, 1860–1900. Professor LOOS.

Second semester; Tu., Th., at 11:00.

C. COURSES PRIMARILY FOR GRADUATES

11, (*12*). POLITICAL PHILOSOPHY—Studies in political and social philosophy with special reference to modern conditions and problems. The class will read Spencer's *Man vs. the State*, Huxley's *Administrative Nihilism*, Ritchie's *Principles of State Interference*, selections from the writings of Thomas Hill Green and other modern philosophers, and Schmoller's *Einige Grunslagen der Socialpolitik*. Professor LOOS.

Throughout the year, time to be arranged.

13, (*14*). GRADUATE SEMINARY IN SOCIOLOGY—Designed to assist graduate students in specific lines of research. Professor LOOS.

Throughout the year, time to be arranged.

POLITICAL ECONOMY

PROFESSOR LOOS; ASSISTANT PROFESSOR PATTERSON, MR. THOMAS

Students who look forward to special courses of study in the School of Political and Social Science are advised to elect the introductory course in economic theory and the course in Economic History (Political Economy 1 and 2) in their sophomore year. Course 1 is a general introductory course for all courses under B.

A. ELEMENTARY COURSES

1. INTRODUCTION TO ECONOMICS—An introduction to the leading principles of economic science. Designed for the general student and as a basis for more advanced studies. Two sections. Open to all students except Freshmen. Professor LOOS and Assistant Professor PATTERSON.

First semester; Section A—Tu., Th., Sat., at 8:00 a. m.; and Section B—Mon., Wed., Fri., at 9:00 a. m.

2. RECENT ECONOMIC HISTORY—A study of recent economic history with detailed analysis of the industrial revolution in its economic and social aspects. Special attention will be given to the development of the individualistic philosophy and its reaction on practical politics and legislation—the factory acts, trade-unionism and the trust problem. Open to all students except Freshmen. Professor LOOS.

Second semester; Tu., Th., Sat., at 8:00.

3. DEBATING COURSE—Selected topics in economics, politics, and sociology. Open only to students who have taken at least one course in one of these subjects. Students may schedule for this course at the beginning of each semester. Professors LOOS and WILCOX, Assistant Professor PATTERSON.

Each semester two hours; time to be arranged.

Students desiring formal instruction in the art of debate are advised to elect Public Speaking 4, in charge of Professor Gordon. For further explanation of the relations of Economics 3 to the courses in public speaking students are referred to Professor Gordon or to the professors in charge of Economics 3. Compare also Public Speaking 8. This course is repeated in the second semester.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

5. MODERN INDUSTRIALISM—The organization of modern business; competition and combination; speculation and the technique of exchange; industrial depressions; insurance. Assistant Professor PATTERSON, and Mr. THOMAS.

First semester; Mon., Wed., Fri., at 2:30.

6. CORPORATION FINANCE AND ACCOUNTING; ELEMENTS OF COMMERCIAL LAW — Forms of investment; consolidation; bankruptcy, receivership, reorganization; general principles of investment. The principles and methods of accounting—nature of balance sheet and determination of what constitutes a profit; the principles of auditing—the theory of depreciation; going concerns vs. those that have ceased operations. Assistant Professor PATTERSON.

Second semester; Mon., Wed., Fri., at 2:30.

7. CURRENCY AND BANKING—The nature of currency—metallic money and credit instruments; the principles of banking; the history of banking; government demand obligations and credit financiering. Professor LOOS.

First semester; Mon., Wed., Fri., at 11:00.

8. PUBLIC FINANCE—(1) The Science of Public Finance: the theory of public expenditure; public income and public debts; the preparation of the budget and financial administration. (2) Outlines of the financial history of the United States. Professor LOOS.

Second semester; Mon., Wed., Fri., at 11:00.

9. TAXATION—An intensive study of the principles, methods and systems of taxation with special reference to the incidence and effect of the several taxes, the federal revenue system in the United States and the revenue system of Iowa. Assigned readings in Seligman's *Essays in Taxation* and other writers with special assignments of topics for reports to be prepared from the original sources. Assistant Professor PATTERSON and Mr. THOMAS.

First semester; Tu., Th., at 9:00.

10. TRANSPORTATION—The course will deal chiefly with railways; railroad organization and management, explanation of terms in common use in railroad accounts and reports, history of railroad development, discussion of rates, competition, discrimination, state management (Hadley's *Railroad Trans-*

portation), and the commission system—state and interstate. Assistant Professor PATTERSON.

Second semester; Tu., Th., at 9:00.

11. INTERNATIONAL LAW AND COMMERCE — *See Sociology 7.* Professor LOOS.

First semester; Tu., Th., at 10:00.

12. COMMERCE AND THE CONSULAR SERVICE — Lectures on commercial geography, commercial relations and the consular service; and the critical reading of the United States consular regulations with notes on conflict of laws or private international law and reports from students on assigned topics. Professor LOOS.

Second semester; two hours, time to be arranged.

13. THE THEORY AND TECHNIQUE OF STATISTICS—Statistical methods and results, with practical work in investigation and tabulation; the laws that govern group actions; sources and reliability of statistical data; the methods of distinguishing true and false inferences. Assistant Professor PATTERSON.

First semester; Mon., Wed., Fri., at 8:00.

14. ECONOMIC AND SOCIAL STATISTICS—Economic Statistics, two hours; A statistical study of the industrial resources of the United States and commercial statistics. Social Statistics, one hour. *See Sociology 4.* Assistant Professor PATTERSON.

Second semester; Mon., Wed., Fri., at 8:00.

C. COURSES PRIMARILY FOR GRADUATES

NOTE—*Some of the courses which follow are prescribed for seniors taking the course in Commerce. Any of these courses are open to undergraduates who have taken the equivalent of 8 semester hours under B.*

15, (*16*). ADVANCED ECONOMIC THEORY — Lectures and readings. The rise and development of the classical school of economists will first be considered. This will be followed by a study of the recent development of political economy. Portions of Adam Smith's *Wealth of Nations*, Malthus's *Essays on Population*, Ricardo's *Political Economy*, and Cairnes's *Leading Principles* will be read by the class. Later the writings of Marshall, Patten, and Clark will be considered, as showing the recent development of the theory of rent and the newer aspects of the science. Assistant Professor PATTERSON.

Throughout the year, two hours a week; time to be arranged.

17, (*18*). SEMINARY IN STATISTICS—Designed to assist advanced students in specific lines of statistical research. Assistant Professor PATTERSON.

Throughout the year; hours to be arranged.

19. THE DISTRIBUTION OF WEALTH—A study of modern theories of distribution with an account of the fundamental social institutions that are regulative in the distribution of income. Professor LOOS.

First semester; Tu., Th., at 11:00.

20. SOCIALISM AND CONTEMPORARY SOCIAL LEGISLATION —*See Sociology 10.* Professor LOOS.

Second semester; Tu., Th., at 11:00.

POLITICAL SCIENCE

PROFESSOR SHAMBAUGH; MR. THOMAS

For undergraduate study the fundamental course offered in Politics is course 1, entitled Historical and Descriptive Politics. Students who wish to elect but one course in the department of Political Science are advised to schedule for this course. Those who desire to pursue a more extended line of study in political and social science are advised to schedule for this course in their sophomore year.

Courses 5 and 6 constitute a liberal introduction to the study of law. Students in the College of Liberal Arts who in their senior year begin the study of law in the College of Law are advised to schedule for these courses. Credits for these courses will be accepted in the College of Law, which will excuse the student from the following required courses in that college: Elementary Law, and Constitutional Law, five weeks.

A. ELEMENTARY COURSES

1. HISTORICAL AND DESCRIPTIVE POLITICS—In the study of political and social science this course is fundamental, being a general introduction to the phenomena of organized society among men. The scope of the lectures may be briefly indicated as follows: The early history of mankind, wherein evolution and the fundamental laws of human progress will be explained and their application to the development of social and political institutions clearly indicated; a general consideration of Anthropology with reference to its bearing upon the study of the

political and social institutions of the Indo-European peoples; the origin of government historically considered; the political institutions of the ancient Greeks, and a consideration of their political ideas and ideals; the political institutions of the Romans and a consideration of their contributions to public law and jurisprudence; primitive Germanic institutions, especially the markgenossenschaft; Mediæval politics—feudalism, and the Church and State. Professor SHAMBAUGH.

First semester; Mon., Wed., Fri., at 8:00.

Open to all students except freshmen.

2. MODERN GOVERNMENTS—Lectures on the governments of France, Germany, Prussia, Switzerland, Belgium, and England. Professor SHAMBAUGH.

Second semester, Mon., Wed., Fri., at 8:00.

Open to all students except freshmen.

3. PRINCIPLES OF AMERICAN GOVERNMENT—A study of the sources and the early development of the principles of government in the United States. Herein our Anglo-Saxon inheritance, government in the Colonies, the growth of federalism, the establishment of the first state governments, and the beginnings of local government will be considered. The following documents will be studied and analyzed: Magna Charta, the Act of Habeas Corpus, the Petition of Right, the Bill of Rights, Colonial Charters, Plans for Union, Articles of Confederation, Declaration of Independence, the First State Constitutions, and the Constitution of the United States. Open to juniors and seniors. Mr. THOMAS.

First semester; Mon., Wed., Fri., at 11:00.

4. POLITICAL PARTIES—A study of the practical workings of American government, wherein the history, organization, operation, and influence of political parties will be discussed. Open to juniors and seniors. Professor SHAMBAUGH.

Second semester; Mon., Wed., Fri., at 11:00.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

5. ELEMENTS OF JURISPRUDENCE—A study of the nature, definition, classification, and divisions of law. The course will include lectures on the history and fundamental principles of the Civil Law of Rome and the Common Law of England. The discussions will be largely non-technical. Open to juniors and seniors. Professor SHAMBAUGH.

First semester; Mon., Wed., Fri., at 10:00.

6. AMERICAN CONSTITUTIONAL LAW — A study of the nature, principles and powers of government in the United States as reflected in written constitutions and in judicial interpretations. Leading cases in constitutional law will be read and discussed. Open to juniors and seniors. Professor SHAMBAUGH.

Second semester; Mon., Wed., Fri., at 10:00.

7. AMERICAN POLITICAL THEORY—A study of American political ideas and ideals, wherein leading state papers will be analyzed, and the political theories of such representative American thinkers as William Penn, Thomas Paine, Washington, Hamilton, Jefferson, John Adams, Samuel Adams, Madison, Fisher Ames, Marshall, Monroe, Webster, Calhoun, Clay, Alexander Stephens, and Lincoln will be discussed and criticised. Open to juniors and seniors. Professor SHAMBAUGH.

Throughout the year; Tu., Th., at 10:00.

8. IOWA HISTORY AND POLITICS—A course of lectures on the history and politics of Iowa.

First semester; Tu., Th., at 2:30.

9. COLONIAL GOVERNMENT—A study of the history and principles of the various systems of colonial government and administration. Mr. THOMAS.

Second semester; Tu., Th., at 2:30.

C. COURSES PRIMARILY FOR GRADUATES

10. COMPARATIVE CONSTITUTIONAL LAW—A critical study of the leading constitutions of Europe and America, wherein the general and theoretical aspects of government will be considered. Professor SHAMBAUGH and Mr. THOMAS.

First semester; two hours.

11. ADMINSTRATIVE LAW—A comparative study of administrative law in France, Germany, England, and the United States. Professor SHAMBAUGH and Mr. THOMAS.

Second semester; two hours.

12. POLITICAL THEORY—In this course a system of pure political theory will be outlined and correlated with philosophy. Professor SHAMBAUGH.

First and second semesters, two hours.

13. SEMINARY IN POLITICAL SCIENCE—In 1902–1903 selected subjects will be assigned for critical study and discussion.

Throughout the year; two hours.

14. POLITICAL SCIENCE CONFERENCE—A weekly conference for the study and discussion of contemporaneous political problems, current legislation and current political literature.

Saturday mornings 10:00–12:00.

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15. POLITICAL PHILOSOPHY—(*See Sociology 8*).

16. INTERNATIONAL LAW—(*See Sociology 7*).

17. COMMERCIAL LAW—(*See Economics 6*).

18. ANGLO-SAXON LAW AND CUSTOM—(*See English 35*).

19. THE ATHENIAN CONSTITUTION—(*See Greek 23*).

PHILOSOPHY

PROFESSOR PATRICK; ASSISTANT PROFESSOR SEASHORE, DR. STUART, MISS WILLIAMS

A. ELEMENTARY COURSES

1, (*a*). ELEMENTARY PSYCHOLOGY—A general course designed as an outline study of the whole subject, an introduction to the special courses in psychology, and a foundation for other courses in the department. The lectures will be illustrated by a rich collection of material for demonstration and by experiments before the class. James's *Psychology*, *Briefer Course*, and selections from other standard texts will be read. This course is open to sophomores. Dr. SEASHORE and Professor PATRICK.

Throughout the year, two sections; three hours a week.

3. INTRODUCTORY LOGIC—An elementary presentation of the methods and rules of inductive and deductive thinking, based upon a preliminary study of the general nature and functions of knowledge and the criteria of truth. Readings in Creighton's *An Introductory Logic*, Welton's *Logical Basis of Education*, and other works. Lectures and recitations. For juniors and seniors. Dr. STUART.

First semester; two hours a week.

4. INTRODUCTORY ETHICS—A general survey of the field of ethics comprising (1) the psychology of conscience, (2) the theory of morality, and (3) a sketch of the history of moral progress. Lectures and recitations. Thilly's *Introduction to Ethics* will be used as a text. For juniors and seniors. Dr. STUART.

Second semester; two hours a week.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

5, (6). HISTORY OF PHILOSOPHY—This course will serve as a general introduction to philosophical problems as well as to the history of thought. Attention will be given to the definition of terms and the explanation of the meaning of the various philosophical problems. The first semester will be devoted to Greek Philosophy and early Christian and mediæval thought; the second semester, to modern philosophy.

This course should be taken as preliminary to all advanced courses in philosophy, and, where possible, should be preceded by the elementary courses in psychology, logic, and ethics. Professor PATRICK.

Throughout the year; three hours a week.

7, (8). LABORATORY COURSE IN EXPERIMENTAL PSYCHOLOGY — The exercises are so selected and arranged as to familiarize the student with the method, the apparatus, and the results of typical experiments in each of the approved lines of psychological research. Two periods are spent on each problem: during the first period the experiment is performed by each individual, the class being divided into groups of two, and during the second, the results and the literature on the subject are discussed on the seminary plan. Titchener's *Manual of Experimental Psychology* is used and is supplemented by mimeographed instructions. Dr. SEASHORE and Miss WILLIAMS.

Throughout the year; two hours a week.

This course may be taken with or in sequence to Course 1.

9. PSYCHOLOGY OF THE CHILD—The physical and mental growth of the child. The theory of recapitulation. The child type. Play. The laws of mental development and the mental characteristics of infancy, childhood, and adolescence. The lectures in this course will be supplemented by readings in the extensive literature of the subject, and by reports from members of the class upon special subjects, such as imitation, self-consciousness, fatigue, suggestibility, right-handedness, differences between boys and girls, etc. Prerequisite, course 1, or some other introduction to psychology. Professor PATRICK.

First semester; two hours a week.

11. ABNORMAL PSYCHOLOGY—A general survey of the laws of abnormal mental phenomena. Abnormal perception, memory, imagination, reasoning, will, and feeling will be discussed with reference to the explanation of sleep, hypnosis, illusions,

automatisms, alterations of personality, insanity, degeneracy, and crime. Lectures and reading. Dr. SEASHORE.

First semester; two hours a week.

12. COMPARATIVE PSYCHOLOGY—A description and interpretation of the instincts and intelligence of animals. Comparison of the conscious life of the higher animals with that of man. Prerequisite, course 1 or some other introduction to psychology. Dr. STUART.

Second semester; two hours a week.

C. COURSES PRIMARILY FOR GRADUATES.

13. INTRODUCTION TO METAPHYSICS—Definition and scope of metaphysics. Theories of reality, with a critical examination of materialism. The seminary method will be followed. Professor PATRICK.

First semester; two hours a week.

14. PHILOSOPHY OF THEISM—The conception of God in the Christian religion and in modern thought. Final causes. The bearing of evolution on theism. Pantheism. Mysticism. This course is a continuation of course 13. Professor PATRICK.

Second semester; two hours a week.

15. ADVANCED ETHICS — A critical study of the historic ethical standards and methods with reference to their adequacy for practical use. Development of a method of ethics based upon a study of impulse, desire, deliberation, and volition. Interpretation of Rightness, Goodness, and Value or Worth; Duty, Obligation, and Merit; Freedom, and Responsibility. Lectures and discussion of assigned readings. Prerequisite, courses 1, 2, and 4. DR. STUART.

First semester; two hours a week.

This course will alternate with course 21, and will be given in 1902–1903.

16. AESTHETICS—Preliminary study of the history of æsthetic theories from the Greeks to the present. Analysis and criticism of æsthetic principles and theories from the standpoint of psychology. Reconstructive study of the theory of art, including the sense of beauty and the art impulse. The reconstructive study will be based on Santayana's *Sense of Beauty* and Hirn's *Origins of Art*. Prerequisite, course 1, (*2*) and course 5, (*6*), or their equivalents. Professor PATRICK.

Second semester; two hours a week.

17, (*18*). ADVANCED PSYCHOLOGY—A systematic study of the problems of normal, adult, human psychology. Reading, lectures, and discussions. Dr. SEASHORE.

Throughout the year; two hours a week.

19, (*20*). SPECIAL RESEARCH IN PSYCHOLOGY—Original investigations of special problems in psychology. Laboratory work and theses. The results of these investigations, if of sufficient worth, will be published in the *University of Iowa Studies in Psychology*. Dr. SEASHORE and Professor PATRICK.

Throughout the year. Hours to be arranged with instructors.

[21. EVOLUTION OF MORALITY—A sketch of the development of morality and of actual moral standards in the history of human culture with particular attention to the principal lines of tendency on which this development has proceeded. Prerequisite, courses 1, 2 and 4. Dr. STUART.

First semester; two hours a week.]

This course will alternate with course 15, and will not be given in 1902-1903.

23. HISTORY OF ETHICS—A survey, historical rather than critical, of the development of ethical theory, particularly during the seventeenth, eighteenth, and nineteenth centuries. Prerequisite, courses 1, 2 and 4, or their equivalents. Dr. STUART.

First semester; two hours a week.

25. ENGLISH EMPIRICAL PHILOSOPHY—The work of Locke, Berkeley and Hume with its later development at the hands of J. S. Mill and Herbert Spencer. Prerequisite, courses 5 and 6, or their equivalent. Dr. STUART.

Second semester; two hours a week.

The course will alternate with course 27, and will be given in 1902-1903.

26. MODERN IDEALISM—A constructive study of recent idealistic philosophy, chiefly English and American, with especial reference to the problems of (1) mechanism and teleology, (2) the relation of the physical and psychical (psycho-physical parallelism) and (3) pluralism and monism. Prerequisite, courses 5 and 6, or their equivalent. Dr. STUART.

Second semester; two hours a week.

[27. KANT'S CRITICAL PHILOSOPHY—A study at first hand of the *Critique of Pure Reason* followed by lectures on the remain-

ing parts of the Critical System. Prerequisite, courses 5 and 6, or their equivalent. Dr. STUART.

Second semester; two hours a week.]

The course will alternate with course 25, and will not be given in 1902–1903.

29, (30). PROBLEMS IN PSYCHOLOGY—A course of reading and criticism in the current literature of psychology. A theme will be required each semester. Dr. SEASHORE.

Throughout the year; two hours a week.

THE SCIENCE AND ART OF EDUCATION

PROFESSOR BOLTON; ASSISTANT PROFESSOR BROWN, MR. DORCAS; SUPT. MCCONNELL, Cedar Rapids, Lecturer

The Department of Education at present includes the following branches of University work:

1. Regular courses of instruction in the science and art of education.
2. The inspection of affiliated high schools.
3. The work of the University Examiner.
4. A Bureau of Information concerning teachers' positions.

Course 1 should be the first one for those who have had some work in psychology or who are studying the subject. Persons who have had teaching experience may also be admitted to this course. For those who have not studied psychology or are without teaching experience, course 3, (4) is recommended. Courses 1, (2) and 5, (6), or 1, (2) and 7, (8) make a good five hour combination. Courses 1, (2), 9, (10), 12 and 13, (14) are especially desirable for normal school graduates and are in no sense a duplication of work done in the normal schools. Advanced courses are also open to those qualified. Some seminary work is especially valuable for such students.

Some work in psychology is a very desirable prerequisite for the courses in education. Students expecting to do considerable work in education can profitably take psychology in the Sophomore year and then distribute the pedagogical work through the Junior and Senior years.

Attention is called to the courses especially adapted for teachers, offered by other departments. These courses are of two kinds, (a) those dealing in a specific way with the methodology

and technique of high school instruction in those subjects, and (*b*) those in which the subject matter of instruction is of fundamental importance (and to a certain extent adaptable) in teaching those subjects in a modern manner in the high school. As much high school instruction needs vitalizing by being made more adaptable to the demands of the present, the value of such courses becomes apparent. Credit will be given in the Department of Education toward the University Teachers' Certificates, for a limited number of teachers' courses offered in other departments. Such credit will be given only for courses dealing with the methodology of the subject involved. Not more than two hours for a semester will be thus credited, and the work must be taken subsequent to some course in the Department of Education.

Teachers' courses of one kind or the other are offered by the Department of English, Latin, Greek, German, Political Science, History, Morphology, Botany, and Zoology. See the announcement for those departments and also consult the professors concerned.

1, (2). PRINCIPLES OF EDUCATION—The meaning of education considered from the standpoint of (1) psychology, (2) neurology, (3) biology, (4) anthropology, (5) sociology. Mental development as affected by heredity and environment. The education of the nervous system, mental hygiene, habit, association, memory, imagination, apperception, instinct, training in sense perception, observation, feeling, and volition in relation to education, motor training, suggestion and imitation as forces in education. Varieties of education and varying ideals, educational means, educational values. Theories maintained by classical writers on education, such as Plato, Comenius, Pestalozzi, Froebel, and Herbart; contemporary writers as Hall, Harris, Rein, Dewey, etc. A study of such questions as the culture epochs, concentration, correlation, nascent periods, etc. Application of the foregoing to the making of courses of study. Professor BOLTON.

Throughout the year; Mon., Wed., Fri., at 10:00.

3, (4). GENERAL PEDAGOGY—This course is designed primarily for students who have not had experience in teaching, or who have not pursued a course in general psychology. The lectures will be largely supplemented by required readings and written and oral reports. During the first semester the aim will be to acquaint the student with the laws governing the growth

of the powers of the mind, to study the modes of mental activity, and to derive from these a general method of teaching.

During the second semester the application of the general method of teaching will be illustrated in discussions of special methods of teaching certain subjects, particularly the language, arts, mathematics, geography, and history. The course will conclude with the consideration of some problems in school management such as school incentives; school examinations, their uses and abuses; school punishments, their nature, end and means; and the relation of instruction and government to will training and character building. During the second semester it is possible that some work in child study or the history of education may be substituted as a part of the course. Mr. DORCAS.

Throughout the year; daily, two sections, 8:00 and 9:00

5, (6). METHODOLOGY AND TECHNIQUE OF INSTRUCTION—A careful study of the fundamental principles of methodology of teaching, together with demonstrations of library and laboratory accessories. The major part of the time will be devoted to high school subjects, though the relation of elementary to higher instruction will be considered. Designed to be thoroughly practical. Members of the faculty from several other departments give two or more lectures on the teaching of their own subjects in the high school. During the past year the heads of the departments of English, History, Political Science, Botany, Mathematics, and Morphology have given such special lectures. These and others may be expected again this year. Through kindness of school officials students will be permitted to visit the city schools to observe methods and school organization. Professor BOLTON.

Throughout the year; Tu., Th., at 10:00.

7, (8). HISTORY OF EDUCATION—This course will include a rapid survey of the chief characteristics of the education of the ancient Chinese, Egyptians, Hindus, and Persians; a very careful consideration of the educational theories and practice of the Hebrews, Greeks, and Romans; the tracing of educational activity from the fall of Rome through the Dark Ages, the age of Charles the Great, and Scholasticism, down to the Renaissance; the study of the rise and development of the humanistic, realistic, and naturalistic tendencies in Renaissance education, with a careful consideration of some of the more prominent educational reformers, such as Erasmus, Mon-

taigne, Rabelais, the Jesuits, Comenius, Locke, Rousseau, Pestalozzi, Froebel, and Spencer.

The lectures will be largely supplemented by required readings and oral and written reports on assigned topics. Mr. DORCAS.

Throughout the year; Tu., Th., at 11:00.

9, (*10*). JOURNAL CLUB—This club meets weekly for the discussion of current educational literature. A report is usually given by some member upon articles of current interest, and then all join informally in the discussion. It has proven of great mutual benefit to students joining. Open to students taking some other course in this department. Professor BOLTON and Mr. DORCAS.

Throughout the year; Wed., at 4:30.

12. THE PEDAGOGY OF CHILDHOOD AND ADOLESCENCE—A study of the physical, mental, and moral nature of children and the best means of the proper development and training of each. Practical questions of home, school, and social pedagogics will be prominent, e. g., educational value of plays and games, self-government in school, children's interests and how to guide them, the power of imitation, the development of altruism, learning of law and order, children's fears, the nervous child, the troublesome child, eyesight, hearing, school diseases, school hygiene, overpressure in schools, the value of child study to parents and teachers, etc. Professor BOLTON.

Second semester; two hours a week.

13, (*14*). THE HIGH SCHOOL—A practical consideration of the problems of the high school, including the place of the high school in an educational system, its relation to the community, organization and management, courses of study, educational values of high school subjects. The high school in its relation to adolescence. To give perspective, the historical development of the American high school, and a comparative view of foreign school systems will be considered. The training of teachers, the success of school systems with reference to (a) the development of the individual and (b) the demands of society. Professor BOLTON, Assistant Professor BROWN; Supt. MCCONNELL.

Throughout the year; two hours a week.

15, (*16*). SEMINARY FOR UNDERGRADUATES—Open only to advanced undergraduate students in pedagogy. This course

will afford an opportunity for the special investigation of simple educational problems. It will form an introductory course in seminary methods of research. Professor BOLTON.

Throughout the year; two hours a week.

COURSES PRIMARILY FOR GRADUATES

17. PHILOSOPHY OF EDUCATION—Advanced course. This course will consist of a more detailed and exhaustive study of some of the questions begun in course 1, (2). Lectures will be given indicating the method of approach and outlining the topic, and then students will be expected to study critically through copious reading, sustained reflection, and, in some cases, observation and experimentation. Reports upon prepared topics will be submitted for class discussion. Professor BOLTON.

First semester; two hours a week.

18. HYGIENE OF INSTRUCTION—The physical and psychological conditions that promote normal psychic development. The following are typical topics: General facts and laws of growth and development; fatigue and methods of studying it; hygiene of the senses; principles and hygiene of motor training; periods of study, recesses, home study; ventilation, school furniture, and apparatus; the hygiene of reading, writing, singing, arithmetic, etc. Lectures, assigned readings, and reports. Professor BOLTON.

Second semester; two hours a week.

*19. HERBARTIAN PEDAGOGY—Herbart's psychological and ethical doctrines in their bearing upon education. A critical consideration of his doctrines of apperception, interest, ethical development, and will training. A sketch of the Herbartian movement in Germany and in America. Teachings of Herbartian disciples. The doctrines of concentration, correlation, and the culture epochs will receive more exhaustive treatment than is passible in course 1, (2). Professor BOLTON.

First semester; two hours a week.

*20. READINGS IN GERMAN AND FRENCH PEDAGOGY—Open only to those who have taken advanced courses in pedagogy, and who have a reading knowledge of these languages sufficient to make them a means of thought-getting. Readings and translations will not be attempted in class; this period will be devoted to reports upon the thought-content gained through reading. Professor BOLTON.

Second semester; two hours a week.

*21. CURRENT EDUCATIONAL PROBLEMS—The topics discussed will necessarily vary somewhat from year to year. An attempt will be made to study carefully the questions that are in the focus of consciousness of the educational public. The following are typical and merely suggestive: Electives in high schools and colleges; self-government of pupils; athletics in high schools; manual training; theory of the kindergarten and its public maintenance; transportation of children to school at public expense; state aid to primary and higher education; nature study; child study in the schools; medical inspection of schools; training of teachers, etc. Professor BOLTON.

First semester; two hours a week.

*22. HISTORY OF EDUCATION — Advanced course. Open only to those who have taken course 7, (8) in this subject. An exhaustive study will be made of selected chapters in the history of the development of educational thought. Sources will be investigated whenever available. Lectures, readings, and exhaustive reports. Mr. DORCAS.

Second semester; two hours a week.

23, (24). GRADUATE SEMINARY IN PEDAGOGICS—Designed to assist graduate students in original research and in the prosecution of thesis work for advanced degrees. Professor BOLTON.

Throughout the year; two hours a week.

THE EDUCATIONAL LIBRARY AND MUSEUM—The department of the Science and Art of Education occupies a suite of five rooms on the second floor of the Hall of Liberal Arts. Besides two offices, a seminar room, and a large lecture room, there is one large room used as a department library and museum.

The library is well equipped with all the standard and many special pedagogical works. All the American educational journals of any importance, and many English, German, and French periodicals are on file. In all about forty journals are regularly received. The library is thoroughly equipped for graduate work in most lines of educational research. It is especially well equipped for work in educational psychology, philosophy of education, and child study.

*The starred courses will not all be given in one year. A group will be offered each year, thus enabling the student to secure from this list new courses for at least three years. This arrangement, combined with the opportunities provided by the regular courses given each year, and the special seminar work, offers a wide scope of work to those seeking the master s or doctor's degree in pedagogy.

ANIMAL MORPHOLOGY AND PHYSIOLOGY

PROFESSOR HOUSER; MR. LAMBERT, MR. STROMSTEN

The courses offered by the department of Animal Morphology and Physiology are arranged in two groups: (*A*) Three elementary courses, each presenting a somewhat distinct aspect of biological science. Courses 1 (*2*) and 3 (*4*), or courses 3 (*4*) and 5 (*6*), may be combined during the same year by those desiring to do more than introductory work. (*B*) Eight courses successively more and more advanced, leading, ultimately, to original research. These courses are to be pursued in serial order.

A. ELEMENTARY COURSES

1, (*2*). ANIMAL BIOLOGY—This course is designed to give a general view of the structure, development, and activities of animals. Laboratory work on fundamental biological phenomena and the unicellular organisms, followed by the dissection and microscopical study of representatives of the chief animal groups. Lectures on the principles of animal organization, supplementary to the laboratory studies, together with the more general topics of environment, heredity, variation, natural selection, animal coloration, and instinct.

Throughout the year, four hours' credit. Lecture, Fri., at 1:30, Professor HOUSER. Laboratory work, Mon., and Wed., 1:30 to 4:30, Mr. LAMBERT and an assistant.

3, (*4*). ANIMAL PHYSIOLOGY—Lectures, reading, and laboratory work introductory to the fundamental principles of animal physiology. This course has sufficient breadth of treatment that, while serving the needs of the general student, it may also form the basis for the work of the teacher or specialist in human physiology. Stewart's *Manual of Physiology* is read by the class as a text, with additional references to works in the departmental library.

Throughout the year, three hours' credit. Lecture and demonstration period, Tu., 1:30 to 3:30, Professor HOUSER. Laboratory work, Thu., 1:30 to 4:30, Mr. LAMBERT and an assistant.

5, (*6*). MORPHOLOGY OF VERTEBRATES—Laboratory study of representative protochordates, followed by the dissection of the lamprey, shark, skate, cat-fish, necturus, frog, turtle, pigeon, and rabbit. Microscopical anatomy is introduced at certain points. Lectures on the general problems of vertebrate organ-

ization, with reading in Wiedersheim's *Comparative Anatomy of Vertebrates*. This course, while also a preparative for the study of human anatomy, is intended primarily for those expecting to pursue advanced courses in animal morphology. Professor HOUSER, Mr. LAMBERT, and Mr. STROMSTEN.

Throughout the year, three hours' credit; Mon., Wed., Fri., 10:00 to 12:00.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

7. VERTEBRATE HISTOLOGY — This is a laboratory course on the microscopical anatomy of the tissues and organs of vertebrates, with constant use of the reference library. The work includes the principles and more general methods of investigation, particularly fixing, imbedding, sectioning, staining, and mounting. The latter part of the course is devoted to a special study of the mammalian nervous system by means of modern technique, accompanied by a series of lectures and demonstrations. Prerequisite, either courses 1 (*2*), 3 (*4*), or 5 (*6*), or the equivalent of course 1 (*2*). Professor HOUSER and Mr. STROMSTEN.

First semester, five hours' credit. Lecture and laboratory, Mon., Wed., Thu., 1:30 to 4:30.

8. EMBRYOLOGY OF VERTEBRATES—Lectures on the comparative embryology of vertebrates, supplemented by required reading. Demonstrations and practical studies of germ-cells, oögenesis, spermatogenesis, fertilization of the ovum, cleavage of the fertilized egg, development of the germ-layers, and formation of the embryo. After the first of April, the laboratory work consists of the preparation and study of the chick at successive stages of development during the first four days of incubation. Prerequisite, course 7. Professor HOUSER and Mr. STROMSTEN.

Second semester, five hours' credit. Lecture and laboratory, Mon., Wed., Thu,, 1:30 to 4:30.

9. EXPERIMENTAL MORPHOLOGY—A study of the relations between the animal organism and its environment. Laboratory work, lectures, reading, and reports. The experimental work involves a study of: (*a*) the effects upon protoplasm of chemical and physical agents; (*b*) the factors which determine the course of development; (*c*) the phenomena of regeneration in representative forms. Texts: Davenport's *Experimental Mor-*

phology, Haacke's *Entwickelungsmechanik*, Morgan's *Regeneration*, Verworn's *General Physiology*, supplemented by references to original literature. Prerequisite, courses 7 and 8. Professor HOUSER and Mr. LAMBERT.

First semester, three hours' credit; Tu., Thu., at 9:00; laboratory hours to be arranged. To alternate with course 11; given in 1902–1903.

11. CELLULAR BIOLOGY—This is a course for the special study of the animal cell. The structure of protoplasm, and the general biology of the cell are presented through laboratory work on the Protozoa, the phases of mitosis, amitosis, and a series of cells from higher animals exemplifying diverse lines of specialization. Prominent conceptions of organization and function are reviewed in lectures. The latter part of the course is devoted to a critical analysis of the facts and theories of heredity. Texts: Hertwig's *The Cell*, Wilson's *The Cell in Development and Inheritance*, Verworn's *General Physiology*, with references to original monographs. Prerequisite, courses 7 and 8. Professor HOUSER and Mr. LAMBERT.

First semester, three hours' credit; Tu., Thu., at 9:00; laboratory hours to be arranged. To alternate with course 9; given in 1903–1904.

10. COMPARATIVE NEUROLOGY—A course on the structure and physiology of the nervous system, continuing the study begun in course 7. The scope of the work includes a review of: (*a*) the beginnings of nervous mechanisms in the lower animals; (*b*) the nervous systems of typical invertebrates; (*c*) the origin and progressive differentiation of nervous structures in the vertebrate series. The subject is presented by lectures, anatomical work, and microscopical study through the use of modern neurological methods. Reading is assigned in the extensive literature pertaining to this field. Prerequisite, courses 7 and 8. Professor HOUSER and Mr. LAMBERT.

Second semester, three hours' credit; Tu., Thu., at 9:00; laboratory hours to be arranged. To alternate with course 12; given in 1902–1903.

12. INVERTEBRATE EMBRYOLOGY—Reading, conferences, and laboratory studies introductory to the development of representative invertebrate forms. This course, while general in its scope, is particularly helpful to those expecting to pursue work at seaside laboratories. The course is based on Korschelt

and Heider's *Text-Book of the Embryology of Invertebrates*, but the student is encouraged throughout to refer to original papers so far as these are accessible. Prerequisite, courses 7 and 8. Professor HOUSER and Mr. LAMBERT.

Second semester, three hours' credit; Tu., Thu., at 9:00; laboratory hours to be arranged. To alternate with course 10; given in 1903–1904.

C. COURSES PRIMARILY FOR GRADUATES

13, (*14*). MORPHOLOGICAL SEMINARY—Weekly meetings of the instructors and advanced students of the department for the presentation of papers, the review of literature, and informal discussions. The primary object is to acquaint those devoting especial attention to animal morphology with some of the aims and problems of current investigation. Professor HOUSER.

Throughout the year, two hours; Thu., at 4:30.

15, (*16*). RESEARCH COURSE—Original investigation of a specific problem in animal morphology. The subjects assigned for research will be in Neurology, Experimental Morphology, Cytology, and Embryology. Means will be found for the publication of all results which are worthy of it. For graduate students having the requisite preliminary training in biological work. Professor HOUSER.

Throughout the year, five periods a week; hours to be arranged.

ZOOLOGY

PROFESSOR NUTTING; ASSISTANT PROFESSOR WICKHAM

A. ELEMENTARY COURSES

1. SYSTEMATIC ZOOLOGY—The earlier part of this course is devoted chiefly to study of the cœlenterates and echinoderms. Later the mammals are taken up and the principles of classification applied to this more limited group. More attention is paid to generic and specific characters, and more detailed descriptions are made, daily practice being afforded by the use of the large series of mammals in the Hornaday collection and main Museum. Instruction in the preparation of skulls and skeletons is given to students desiring it. Professor NUTTING and Assistant Professor WICKHAM.

First semester; Mon., Tu., Wed. and Thu.

2. SYSTEMATIC ZOOLOGY—This course will be concerned with a continuation of the study of mammals; the last twelve weeks however will be spent in the consideration of birds, and on this subject the whole work in Systematic Zoology is centered. Owing to the very large series of birds (about 11,000 specimens) in the museum, there is ample opportunity for systematic work during this semester. Professor NUTTING and Assistant Professor WICKHAM.

Second semester; Mon., Tu., Wed., and Thu.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

3, (4). ENTOMOLOGY—This course opens with a study of the anatomy and development of insects after which each order will be taken up in detail, typical species of the principal families being chosen to illustrate structure and classification. Due attention is given to economic problems and to the philosophical side of the subject. Assistant Professor WICKHAM.

Throughout the year; Mon. and Tu.

5, (6). LECTURES ON SPECULATIVE ZOOLOGY — This course is devoted to a presentation of the more prominent theories concerning the origin and development of animal forms and a historical review of the position held by the most prominent workers in speculative zoology. Special attention will also be paid to a study of the habits, instincts, and intelligence of animals. The course will be open to juniors and seniors. Professor NUTTING.

Throughout the year; Thu. and Fri.

7, (8). THESIS—Advanced work in any group of animals of which the Museum contains a sufficient series. Free access to any specimens or books on the Museum floor is accorded students doing thesis work in zoology, and a convenient study room has been fitted up for the use of advanced students.

The above courses are intended to be consecutive, except that course 3 may follow the first year's work in animal morphology, and 5 may be taken by juniors and seniors without previous work in natural science. A combination of courses 3 and 5 is recommended for students desiring a four hours' course, which will include a critical study of a definite group of animals, together with the application of biological principles elucidated in course 4. This course is more particularly designed in the interest of students who do not intend to specialize in zoology.

C. COURSES PRIMARILY FOR GRADUATES

9, (*10*). An exhaustive systematic discussion of any limited group of animals of which the Museum affords sufficient material and the library sufficient literature.

In several groups, such as birds, echinoderms, mollusca, crustacea, coleoptera, and coelenterata, the Museum can now offer facilities for the most advanced systematic work, both the material and the literature being adequate.

11, (*12*). Special investigation along the lines of speculative zoology; e. g., coloration of animals, geographical distribution, variation, natural selection, etc.

Each course in zoology will involve considerable original research, and cannot be outlined in advance, as it is impossible to foretell the direction in which the student will be led by his investigations. As an example of the nature of the work expected of students taking zoology as a major, the following outline of a thesis presented and accepted for the master's degree is given:

Subject: *Individual Variation of Animals in a State of Nature.*

Material used: The unusually large series of certain American birds in the museums of natural history, and the literature on variation in the university library.

Method of work: Over ten thousand measurements were taken of the parts to be compared. These measurements were recorded, and used in constructing diagrams which show graphically: (*i*) the actual extent of variation; (*ii*) the comparative extent of variation; (*iii*) correlation in variation of different parts of the animal.

The thesis itself presents a discussion of variation in general, and the results of the special investigations of the writer in particular, with immediate reference to their bearing on the theory of natural selection as advanced by Charles Darwin. The diagrams indicated that not only the extent of variation but also the direction in which it is tending, can be ascertained by the method used by the writer.

BOTANY

PROFESSOR MACBRIDE; ASSISTANT PROFESSOR SHIMEK

A. COURSES FOR UNDERGRADUATES

1, (*2*). GENERAL BOTANY—A course of popular lectures and special studies intended to illustrate the purpose, method, and

scope of present botanical research, the progress of botanical science in recent years, and the general economic importance of the subject. The lectures are illustrated by material from the herbarium and the field, and no effort is spared to give the course the highest practical value. This course, though intended primarily for those intending to teach, is open to all students.

A course of illustrated lectures, usually one every Monday evening, accompanies this course and course 5. Professor MACBRIDE.

Two hours a week; throughout the year.

3, (4). MORPHOLOGICAL BOTANY — This course consists of lectures and laboratory work and is intended to illustrate the structure and life-history of the several types presented by the vegetable kingdom. Goebel's *Outlines of Classification* is used as basis. Special attention is paid to all available forms of our cryptogamic flora; slime moulds, schizophytes, diatoms, algæ, fungi, mosses, ferns, and their allies are successively passed in review. This course is open to all students who have had course 1, and to all students who are credited with botany in their preparatory course. While it is in some particulars a review of the preparatory courses, it is also made the basis of work in the subsequent courses. Professor MACBRIDE and Assistant Professor SHIMEK.

First semester; Mon., Tu., Wed., Th.

5, (6). GENERAL PLANT HISTOLOGY AND PHYSIOLOGY— This course requires eight hours a week in the laboratory. Daily lectures accompany the laboratory work. The first half of the semester is devoted to histology, in connection with which the student receives special instruction in the preparation of vegetable sections, staining, mounting, etc.

The second half of the semester is given to general plant physiology, based in part upon the histological investigation, and in part on experimental work and observation in the field. The course includes the microscopic study of the products of the vegetable cell and the discussion of their origin and relation to the life of the plant, and also the physiology of cell-division together with the investigation of the microscopic structure of cytoplasm, the nucleus, nuclear division, etc. Professor MACBRIDE and Assistant Professor SHIMEK.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

7, (*8*). EXPERIMENTAL PLANT PHYSIOLOGY — This is a course in experimental laboratory and field work, and includes the investigation of the processes of absorption, assimilation and respiration in the green plant, including the attendant phenomena of transpiration, geotropism, hydrotropism, etc. Assistant Professor SHIMEK.

Two hours a week; throughout the year.

9, (*10*). GENERAL PLANT ECOLOGY—In this course the most important problems of ecology in the broadest sense are discussed, and illustrated by field and laboratory work. The local flora, developed under the diversified conditions existing in the region about the University, furnishes abundant material for the illustration of the more important phases of modern ecology.

This course is especially recommended to those intending to teach. Assistant Professor SHIMEK.

Three hours a week; throughout the year.

11, (*12*). GENERAL MYCOLOGY — This is a course in the study of fungi and consists of laboratory work, supplemented by lectures, experiment, and collateral reading. It is an advanced course. Students make and classify collections for themselves. In identifying material collected, students are aided by extensive mycologic literature, *exsiccati*, etc. Professor MACBRIDE.

Throughout the year; as arranged.

13, (*14*). VEGETABLE EMBRYOLOGY—A special laboratory course with collateral reading. This course is confined chiefly to the consideration of the embryology of phenogamous plants. Some plant is selected by the student and its whole life history traced. Professor MACBRIDE.

Throughout the year; as arranged.

15. (*16*). SPECIAL SYSTEMATIC WORK—The large collections of the University now afford unusual opportunity for the special study of particular groups and families, and students are invited to engage in original research in the revision of accumulated species. Professor MACBRIDE and Assistant Professor SHIMEK.

Throughout the year.

17, (*18*). SPECIAL APPLIED BOTANY—A course of reading and laboratory study for students of pharmacy and medicine. The officinal *Materia Medica* is made the basis of the special

study of medicinal plants, their nature, origin, and relationships. Professor MACBRIDE.

Throughout the year.

19, (*20*). THESIS COURSE — Designed for such students, either graduates or others, as desire to undertake problems of original research. Professor MACBRIDE and Assistant Professor SHIMEK.

Throughout the year.

21, (*22*). SEMINARY—A special course in reading and study of current literature is arranged for such students as have completed at least three courses in botany. Students are expected to prepare written reviews and criticisms of the literature presented, to engage in discussion of topics especially assigned, and to carry forward at appropriate seasons special investigations in the field as directed. Professor MACBRIDE and Assistant Professor SHIMEK.

Throughout the year; one hour a week, Monday, 4:30 P. M.

GEOLOGY

PROFESSOR CALVIN; ASSISTANT PROFESSOR GEORGE

A. COURSES FOR UNDERGRADUATES

1. (*2*). PRINCIPLES OF GEOLOGY—This course is designed to present the fundamental facts of geology for students who wish to become acquainted with the principles of the science without making a specialty of it. Lectures, illustrated with Museum specimens, views, maps, and microscopic preparations. Professor CALVIN.

This course may be supplemented by course 1 in astronomy.

Throughout the year, twice a week; Tu., Th., at 9:00.

3. ELEMENTARY MINERALOGY AND PETROLOGY — This course will include a study of a few of the common economic minerals, and the application of easy determinative tests; the common rock-forming minerals and the common rocks. The aim of the course is a practical familiarity with common minerals and rocks, rather than a technical knowledge of them. Professor GEORGE.

This course may serve as an introduction to course 5.

The first half of first semester; Tu., Wed., Th., Fri., at 8:00.

5. PHYSICAL AND DYNAMICAL GEOLOGY—In this course

the principles of general geology are discussed so far as they relate to the destructive, constructive, and other dynamic forces which operate to bring about change on the earth's surface. Especial attention is given to the facts of rock-making, continent-making, and mountain making, together with the evolution of the major and minor topographic forms of the North American continent. Large series of rocks, minerals, maps, lantern slides, photographs, and models afford the materials for lecture illustration and laboratory study. Professor CALVIN.

Lectures and laboratory work; Mon., Tu., Wed., Th., first semester, at 10:00.

6. HISTORICAL GEOLOGY—In this course attention is given to the time periods and rock systems recognized by geologists, to the physical and physiographic conditions under which the successive rock strata of North America were deposited, and to the lithology, geographical distribution, economic products and typical faunas of the several formations, particularly those of the Mississippi Valley. Professor CALVIN.

Lectures and laboratory work Mon., Tu., Wed., Thu., second semester, at 10:00.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES.

7, (8). ECONOMIC GEOLOGY—The course is intended to give a practical knowledge of the geological products of the United States which are of economic importance. It will include:

(a). Metalliferous products, the nature and distribution of ore deposits, the sources and modes of deposition of ores, with special reference to the ores of iron, copper, lead, zinc, nickel, tin, manganese, silver, and gold.

(b). Non-metalliferous products, including coal, petroleum, natural gas, phosphates, gypsum, marls, cements, building stone, etc.; soils, fertilizers, and water supply. Professor GEORGE.

Tu., Wed., Thu., Fri. From middle of first semester through the year, at 8:00.

This course should be preceded by course 2 or course 3.

NOTE—This is primarily an undergraduate course, but may be taken by graduate students who have done a year's work in geology.

9, (10). PETROLOGY—This course will include:

(a). Crystallography; a study of the properties of crystals, the process of crystallization and the crystal systems, with lab-

oratory exercises using natural crystals, crystal models, and microscopic sections of crystals;

(b). Descriptive and determinative mineralogy of the rock-making minerals;

(c). The mineralogical and chemical composition of rocks, their origin, structural features, and classification.

The laboratory equipment for this course consists of carefully selected collections representing all the principal rock-making minerals, rock families, and rock types, together with several hundred thin sections for study with the microscope, and a number of the latest and best petrographical microscopes. Professor GEORGE.

Throughout the year; Mon., Tu., Wed., Thu. Lectures and laboratory work, 1:30 to 3:30.

11, (*12*). INVERTEBRATE PALEONTOLOGY—The course in Paleontology is designed primarily to give the student such acquaintance with fossil faunas as will enable him to determine the age of rocks containing recognizable organic remains. The principles of classification are studied, and the principal fossil types are carefully described from museum material or from specimens collected in the field. Professor CALVIN.

Throughout the year; Tu., Wed., Thu., Fri., at 8:00.

13, (*14*). GEOLOGY OF IOWA—This course is offered to students who have had the equivalent of courses 3 and 4, or 3 and 5, and is intended for those who, for any reason, desire an intimate knowledge of the geology of the state. To count four hours for one, or two semesters. Hours arranged to meet the convenience of students. Professor CALVIN.

15, (*16*). PETROLOGY—Advanced work is offered to students who have taken a course in petrology. The work will consist in the careful study of the rocks of a selected region, and the preparation of a thesis on the same. The course may be taken so as to count two, or four hours through the year. Professor GEORGE.

C. COURSES PRIMARILY FOR GRADUATES

17, (*18*). RESEARCH WORK IN PALEONTOLOGY—This course may be taken as a major or a minor by candidates for graduate degrees. It may embrace such problems as the stratigraphic distribution of the fauna of a given geological formation, the critical study of certain selected geological faunas, the geographical range of certain zoological groups of organisms,

or the evidences of descent in successive geological faunas. Length of course, from one to three years. Professor CALVIN.

19, (*20*). FIELD WORK IN GEOLOGY—This work may cover any one of a large range of subjects. For example, it may include the careful study of the indurated rocks of some selected area, making sections, correlating outcrops, mapping the geology, and writing a report. The study of Pleistocene geology in Iowa affords many interesting problems relative to the age and composition of the drift in different localities, the characteristics and origin of the crystalline bowlders, the origin and distribution of the loess and many other questions. The work may be directed by Professor CALVIN or Professor GEORGE.

21, (*22*). RESEARCH WORK IN ECONOMIC GEOLOGY OR MINERALOGY—The work in this course will depend largely on the previous preparation of the student. It may consist of detailed study of some geological field of economic importance, or of some mineral or group of minerals and the related industries. The credit given will depend upon the nature of the work and the time spent. Professor GEORGE.

CHEMISTRY

PROFESSOR ANDREWS; DR. VON ENDE, MR. H. H. LOCKRIDGE, MISS A. ANKENEY, MR. ————.

1. GENERAL CHEMISTRY — Experimental lectures, with laboratory practicum and a weekly quiz. Professor ANDREWS and Dr. VON ENDE.

First semester; four times a week, of which the laboratory practicum constitutes one exercise during the first half and two during the second.

Lectures, Mon., Wed., and Fri., at 9:00. Laboratory any afternoon between 2 and 5.

2. GENERAL CHEMISTRY. (Continued) — Lectures illustrated by experiments. Introduction to qualitative analysis. Professor ANDREWS and Dr. VON ENDE.

Second semester: Laboratory practicum six hours a week.

Lectures; Mon., and Th., at 9:00. Laboratory hours as during the first semester.

3, (*4*). QUALITATIVE ANALYSIS—Laboratory practicum four times a week.

Dr. VON ENDE, First semester.

Professor ANDREWS, Second semester.

5. QUANTITATIVE ANALYSIS—(*a*) Lectures on general principles and sources of error, once a week. (*b*) Laboratory ten hours a week. Professor ANDREWS.

First semester; four times a week (*A*), or five times (*B*).

6. QUANTITATIVE ANALYSIS. (Continued)—(*a*) Lectures once a week. (*b*) Laboratory ten hours. Professor ANDREWS.

Second semester.

7, (*8*). THEORETICAL AND PHYSICAL CHEMISTRY — Lectures and laboratory practica, covering chemical statics and dynamics, thermo and electro-chemistry. Dr. VON ENDE.

First and second semesters; lectures once a week and practicum once a week.

9, (*10*). THEORETICAL AND PHYSICAL CHEMISTRY—Laboratory course. Courses 7, 8 and 9, 10 may be taken simultaneously or independently. They must be preceded by at least courses 1 and 2 and by the first two in physics, or their equivalent. Dr. VON ENDE.

First and second semesters; laboratory practicum twice a week.

12. HISTORY OF CHEMICAL THEORIES — Lectures on the development of chemical theory, with particular attention to the post-phlogiston period.

Second semester; twice a week.

13, (*14*). ORGANIC CHEMISTRY—Lectures on the aliphatic, carbocyclic and heterocyclic compounds. Laboratory exercises on the preparation of typical organic compounds, methods of synthesis, and study of reactions. Professor ANDREWS.

First and second semesters; lectures once a week. Laboratory twice a week (*A*), or four times a week (*B*).

15. DETERMINATIVE MINERALOGY—Laboratory exercises in the recognition of minerals, and blowpipe analysis. Dr. VON ENDE.

First or second semester; practicum three times a week.

C. COURSES OPEN TO GRADUATES ONLY

16. RESEARCH WORK in either of the branches designated above under 5, 6, or 7. In all cases where chemistry is taken as a major, part of the work must be in class c.

Much weight is attached to properly directed courses of reading. The attention of the student is turned particularly to the study of the *sources*—of the original publications of investigators who have built up the science of chemistry, rather than to the works of compilers or text-book makers; since it is believed that in this way the scientific spirit can best be stimulated and developed.

PHYSICS

PROFESSOR VEBLEN; MR. LORENZ, MR. SIEG, MR. BOEHM

A. COURSES FOR UNDERGRADUATES

1. MECHANICS, SOUND, AND HEAT—Lectures and recitations. Professor VEBLEN, Mr. SIEG, and Mr. BOEHM.

First semester, four times a week, 11:00.

2. ELECTRICITY AND MAGNETISM AND LIGHT—Lectures and recitations twice a week. General laboratory work twice a week. Professor VEBLEN, Mr. LORENZ, Mr. SIEG, Mr. BOEHM.

Second semester; lectures at 11:00.

B. COURSES PRIMARILY FOR UNDERGRADUATES, BUT OPEN ALSO TO GRADUATES

3. PHYSICAL MEASUREMENTS—Laboratory work, two or more times a week, one semester. Mr. LORENZ.

4. MEASUREMENTS AND DETERMINATIONS OF CONSTANTS.—Two or more times a week in the laboratory; one semester. Mr. LORENZ.

5. ELECTRICITY AND DIRECT CURRENT MACHINES.—Lectures to electrical and civil engineering Juniors. Professor VEBLEN.

First semester, twice a week.

6. ALTERNATE CURRENT MACHINES—Lectures to engineering Juniors. Professor VEBLEN.

Second semester, once a week.

7 and 8. ELECTRICAL MEASUREMENTS — Junior Electrical Laboratory Course. Professor VEBLEN and Mr. LORENZ.

Twice a week, throughout the year.

10. HEAT AND THERMODYNAMICS—Lectures to engineering Juniors. Mr. LORENZ.

Second semester, twice a week.

11. ALTERNATE CURRENTS AND TRANSFORMERS — Lectures. Mr. LORENZ.

First semester, twice a week.

13. ALTERNATE AND POLYPHASE CURRENT MACHINERY —Lectures. Professor VEBLEN.

First semester, twice a week.

14. DISTRIBUTION OF ELECTRICAL ENERGY; THE TELEGRAPH AND TELEPHONE; PHOTOMETRY—Lectures. Professor VEBLEN.

Second semester, four times a week.

15, (*16*). Electrical Testing and Special Laboratory Work for Seniors in Electrical Engineering. Professor VEBLEN and Mr. LORENZ.

Throughout the year; first semester six times a week, second semester four times.

17, (*18*). OPTICS—Lectures and laboratory work. Calculus and second year physics are prerequisites to this course. Mr. LORENZ.

Twice a week, throughout the year.

19. METEOROLOGY—Lectures. Professor VEBLEN.

One semester, twice a week.

21, (*22*). SEMINARY—The systematic reading of the physical and electrical journals received at the reading room of the department. Conducted by Professor VEBLEN.

Once a week.

In addition to the courses here mentioned, lectures and laboratory instruction in special or selected topics will be given as circumstances may require or the facilities for instruction may admit. Laboratory work of any grade may be taken during either semester, two or more times a week.

C. COURSES PRIMARILY FOR GRADUATES

23, (*24*). SPECIAL RESEARCH—Open to students who have a sufficient preliminary knowledge of general physics, and who have the necessary experimental skill, acquired in a course sim-

ilar to 3 and 4 above. In choosing this course the student must satisfy the instructors that he is sufficiently equipped to undertake research work; and the choice will of course be limited to such problems as the material facilities of the laboratory will make possible of solution.

25, (*26*). THEORETICAL AND PRACTICAL STUDY OF SOME PARTICULAR GROUP OF PHENOMENA OR LAWS—Such a course may consist of critical study of the literature of the subject chosen, as the electro-magnetic theory of light, polyphase currents, terrestrial magnetism, etc. In all cases experimental work will be required where it will be useful or applicable.

27, (*28*). THESIS—In all cases where physics is pursued as a major subject for an advanced degree a thesis will be required. In courses 16 and 17 above the thesis will form a very important part of the requirement. It should embody the record and results of the research or the argument and conclusions of the study. While theses will be criticised primarily with respect to their subject matter, it is expected that they will present a neat appearance and be commendable pieces of literary work.

ELECTRICAL ENGINEERING

A comprehensive view of the course in electrical engineering is inserted here for the convenience of those who may be specially interested. The course is nearly identical with those in civil engineering and in science to the end of the freshman year; and it includes the requirements in military drill in the college of Liberal Arts.

English is taken twice a week through the freshman year and three times a week in the junior year; and the foreign languages required are French and German, each pursued one year, one in the freshman year, the other in the sophomore year.

Three years of mathematics are required. The courses taken are fully described under the department of Mathematics, and include trigonometry and algebra, analytical geometry and calculus, analytical and applied mechanics, and differential equations.

The work taken in the Department of Civil Engineering includes drawing twice a week through the sophomore year, and draughting three times a week in the senior year; also the steam engine, and strength and resistance of materials, twice a week

through the same year. Instruction in shop work is received during the sophomore year. Those who so elect may take shop work once a week in the freshman year, but this will not release them from the sophomore requirement in shop work.

The requirements in chemistry include one full year of general chemistry during the junior year and electro-chemistry during the second semester of the senior year.

Very nearly one-third of the work of the course is taken in the department of physics. The freshman courses 1 and 2 make up the course in general physics. Laboratory work is begun in the second semester of this year, being now of a general character, and becoming more and more strictly electrical as the student advances through the sophomore laboratory course. In the sophomore and junior courses, lectures will be given from time to time on such subjects as the construction and action of measuring instruments, methods of measurement, sources of error, etc.

Besides practical work in the laboratory throughout the junior year, the student takes courses of lectures on the theory and construction of direct current machinery, on the construction of alternators, and on thermodynamics.

The senior courses in this department require eighteen semester hours of the student's time. About half of this is given to practical work in the laboratory. The courses include mathematical and graphical treatment of alternating theory; the study of transformers; photometry; lectures, reading, recitations, and papers on various problems of transmission and distribution of energy; telephones and telegraphs; problems in connection with the system of wiring, arrangement of central stations, and the like. If it seems best the student may, as part of the work of this year, prepare a thesis, generally involving the design and construction of some piece of apparatus. The time given to each of the topics pursued and the order of presentation may vary according to the needs of different classes.

During his junior year the student is required, and in his senior year is expected, to participate in the work of the seminary. This is designed to give him acquaintance with current physical and electrical literature, and encourage systematic and critical reading of the journals. The library of the department is full and varied and is easy of access.

Attention is called also to the outline of the "Course in Electrical Engineering" on page 81.

MATHEMATICS

PROFESSOR WELD; ASSISTANT PROFESSOR SMITH, DR. WESTFALL, MR. BECK, MR. BURTON, MR. ————

All students are required to take course 1 (*a*, *b*) course 2 (*a*) and either course 2 (*b*) or 4 (*b*). Freshmen entering at the beginning of the second semester must take courses 2 (*a*) and 4 (*b*), supplementing these by courses 7 (*a*, *b*) in the second year. Course 2 (*b*) must be taken by students in engineering and should be taken by all scientific students. In addition to the above, engineering students must take courses 5 (*a*, *b*) and 6 or their equivalent, courses 8 (*a*, *b*) and 9; besides courses 37, 38, 39, 40 in mechanics.

Courses having odd numbers are given in the first semester; those with even numbers, in the second. Further explanations will be found in connection with the following syllabus, and in the current announcement of the Graduate College.

A. COURSES FOR UNDERGRADUATES

1. (*a*) ALGEBRA—Exercises in the statement and solution of problems; the theory of the simple and of the quadratic equation; simultaneous systems of equations; ratio, proportion, and variation; the theory of exponents; logarithms. First quarter.

(*b*) PLANE TRIGONOMETRY—Trigonometric functions and formulæ; logarithmic functions; solution of right and oblique angled triangles; practical applications to surveying, plane sailing and mensuration. Second quarter, beginning Dec. 2.

Six sections: *A*, *B*, and *C*, meeting Mon., Tu., Wed., Thu., at 8:00, 9:00, and 10:00 respectively; *F*, *G*, and *H* meeting Tu., Wed., Thu., at 10:00, 1:30 and 2:30. Assistant Professor SMITH, Dr. WESTFALL, Mr. BECK, Mr. ————.

2. (*a*). ALGEBRA—Arithmetical, harmonical, and geometrical progressions; properties of series and the development of simple functions into series; the binomial theorem; the logarithmic and exponential series; continued fractions; permutations and combinations. Third quarter.

Six sections, the same as A, B, C, F, G, and H, of the first semester.

(*b*). ANALYTICAL GEOMETRY—Rectangular and polar coordinates; examples of loci in general including the *graphs* of the rational integral function; circle, ellipse, and hyperbola;

tangents, normals and asymptotes. Fourth quarter, beginning April 14.

Four sections, the same as A, B, F, and G, of course 1. Assistant Professor SMITH, Dr. WESTFALL, Mr. BECK, Mr. ——.

4. (*b*). THEORY OF EQUATIONS—The rudiments of determinants; imaginaries; the properties of the rational integral function and their graphical representation, methods of approximating to the roots of equations; Cardan's solution of cubics; biquadratic equations. Fourth quarter, beginning April 14.

Two sections, the same as C and H of course 1. Mr. BECK and Mr. ——.

5. (*a*). ANALYTICAL GEOMETRY—The discussion of the general equation of the second degree in two variables; higher plane curves; analytic geometry of three dimensions. First quarter.

(*b*) DIFFERENTIAL CALCULUS—A course in elementary calculus to be continued through the year. Second quarter, beginning December 2.

Two sections: A, meeting Mon., Tu., Wed., Thu., at 8:00; B, meeting Tu., Wed., Thu., Fri., at 10:00. Assistant Professor SMITH and Dr. WESTFALL.

6. DIFFERENTIAL AND INTEGRAL CALCULUS—A continuation of 5 (*b*). The fundamental principles of the calculus are studied and applied to the solution of problems in geometry, mechanics, etc.

Second semester. One section, the same as A of course 5. Assistant Professor SMITH and Dr. WESTFALL.

7. (*a*). PLANE TRIGONOMETRY—The same as course 1 (*b*). First quarter.

(*b*). ANALYTICAL GEOMETRY—The same as course 2 (*b*). Second quarter, beginning Dec. 2.

Two sections: D and E, meeting Mon., Tu., Thu., Fri. at 11:00 and 12:00 respectively. Mr. BECK and Mr. ——.

8. (*a*). ANALYTICAL GEOMETRY—The same as course 5 (*a*). Third quarter.

(*b*). DIFFERENTIAL CALCULUS—The same as 5 (*b*). Fourth quarter, beginning April 14.

One section, meeting Mon., Tu., Thu., Fri., at 11:00. Assistant Professor SMITH or Dr. WESTFALL.

9. DIFFERENTIAL AND INTEGRAL CALCULUS—The same as course 6 and a continuation of 8 (*b*).

First semester. One section, the same as in course 8. Assistant Professor SMITH or Dr. WESTFALL.

11. THEORY OF EQUATIONS — This course and course 12 are not open to freshmen. They should be taken in connection with courses 13 and 14 by those who have not already studied the subjects and who intend to specialize in mathematics.

First semester; one hour per week: Tu., Thu., or Sat., at 9:00 Dr. WESTFALL.

12. (*a*) SPHERICAL TRIGONOMETRY. (*b*) ANALYTICAL TRIGONOMETRY AND HYPERBOLIC FUNCTIONS—See course 11. Second semester; one hour per week; Tu., Thu., or Sat., at 9:00. Dr. WESTFALL.

37, (*38*); ANALYTICAL MECHANICS—*Statics*: Composition and resolution of forces, the funicular polygon, center of gravity, moment of inertia, friction, etc. *Kinetics:* Rectilinear motion, projectiles, constrained motion of a particle, the pendulum, etc. Supplemented by courses 39, 40 in applied mechanics. Throughout the year; Mon. and Wed., at 11:00. Assistant Professor SMITH.

39, (*40*). APPLIED MECHANICS—Resistance and elasticity of materials, cantilever simple and continuous beams, columns, strength of shafts transmitting power, combined stresses, strength of materials used in construction, the principles of resilience, tension, compression, shear and torsion. The subjects outlined will be studied from a practical as well as a theoretical standpoint and results and formulæ will be tested by supplementary work in the engineering laboratories. See courses 37, 38.

Throughout the year; Tu. and Thu., at 11:00. Assistant Professor SMITH.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

13. ADVANCED CALCULUS—A continuation of the elementary courses in calculus, devoted particularly to such topics as the extension of Taylor's series, the series of Lagrange, maxima and minima of functions of two or more variables, transformations of differential equations, variations, etc. Dr. WESTFALL.

First semester; Mon., Wed., Fri., at 9:00.

14. DIFFERENTIAL EQUATIONS — An elementary course

devoted to the methods of solution of ordinary differential equations. Open to all students who have completed the elements of the calculus. See course 34. Dr. WESTFALL.

Second semester: Mon., Wed., Fri., at 9:00.

17. THE METHOD OF LEAST SQUARES, with numerous applications to the reduction of series of physical observations. Assistant Professor SMITH.

First semester; Tu. and Thu., at 2:30.

18. THE THEORY OF SURFACES, with problems. Dr. WESTFALL.

Second semester, Tu. and Thu., at 2:30.

19, (*20*). DETERMINANTS AND MODERN GEOMETRY—Determinants, the theory of quantics, the principle of invariance; modern and analytical geometry of two and of three dimensions. Professor WELD.

Throughout the year; Tu. and Thu., at 8:00.

[21, (*22*). THE THEORY OF FUNCTIONS—Lectures, the works of Durège, Harkness and Morley, and others being used by the student for collateral reading. Professor WELD.

Throughout the year; Tu. and Thu., at 11:00.]

This course will not be given in 1902–1903.

23. DEFINITE INTEGRALS, including a discussion of the *Beta* and *Gamma* functions. Lectures. Professor WELD.

First semester; Tu. and Thu., at 11:00.

24. ELLIPTIC INTEGRALS AND FUNCTIONS—Lectures, with problems and practical applications.

Second semester; Tu. and Thu., at 11:00. Professor WELD.

41, (*42*). THEORETICAL MECHANICS — Problems in statics and dynamics; virtual velocities; the principle of least action; the dynamics of a particle, with special reference to orbital motion; the theory of attraction.

Throughout the year; Tu. and Thu., at 8:00. Assistant Professor SMITH.

51, (*52*). THE MATHEMATICAL SEMINARY is conducted for the benefit of students making a special study of mathematics, and is open to all who have completed elementary calculus. The topics upon which papers are prepared under the direction of the several instructors are such as are suggested by the regular work of the various courses.

Throughout the year; Tu. or Thu., 2:30 to 4:30.

C. COURSES PRIMARILY FOR GRADUATES

27, (*28*). THEORY OF THE POTENTIAL AND SPHERICAL HARMONICS—The potential function; Laplace's equations of continuity in rectangular, cylindrical and spherical coordinates; Green's transformation; velocity potential; plane wave motion; Fourier's series and integral; applications of Fourier's series to problems in acoustics, heat and electricity; physical problems involving cylindrical, tonal and spherical harmonics.

Throughout the year; Mon., Wed., Fri., at 11:00. Professor WELD.

31. DIFFERENTIAL EQUATIONS—An advanced course, which must be preceded by courses 13 and 14. Dr. WESTFALL.

First semester; Tu. and Thu., at 9:00.

[34. VECTOR ANALYSIS—Lectures and collateral reading. Professor WELD.

Second semester; Tu. and Thu., at 8:00.]

This course will not be given in 1902–1903.

[43, (*44*). HYDROMECHANICS—Laws of pressure; equilibrium and oscillation of floating bodies; conditions of equilibrium of a mass of rotating fluid, with application to the figure of the earth; equations of motion of a perfect fluid; waves; the motion of a solid in a fluid medium. Assistant Professor SMITH.

Throughout the year; Tu. and Thu., at 8:00.]

This course will not be given in 1902–1903.

THE LOWDEN MATHEMATICAL PRIZE

Competition for the Lowden Mathematical Prize of fifty dollars ($50.00) for excellence in mathemathics, established by Mr. Frank O. Lowden, of Chicago, is open to all students who are about to complete in course the work of the freshman and sophomore years in mathematics, the last three terms of such work being done at this University in the regular classes.

The examination upon which the prize is to be awarded will be conducted by the professor of mathematics, and will be held in May, not later than the second Saturday preceding the opening of commencement week. Candidates should prepare for examination in the following subjects: Algebra, theory of equations; plane and spherical trigonometry; analytical geometry of two dimensions; the elements of differential and integral calculus.

The prize will be awarded by a committee, the members of

which shall be the professors of mathematics, engineering, and physics in the State University of Iowa, and two others to be appointed by the President of the University. It may be equally divided between not more than two candidates, or may be withheld if it shall appear that the work of no candidate is of a superior order of merit.

ASTRONOMY

PROFESSOR WELD

The courses in astronomy are open to all sophomores, juniors, and seniors. Those here offered may be taken simultaneously or in succession. Others will be added as soon as necessary arrangements can be made. The University is provided with a small but well equipped students' observatory. (See *Material Equipment*).

1, (2). GENERAL ASTRONOMY—A course of lectures on descriptive astronomy for the general student. This course may be supplemented by courses 1, (2) in geology, which are given at the same hour, on Tuesdays and Thursdays.

Three lectures a week, throughout the year; Mon., Wed., Fri., at 9:00.

3, (4). PRACTICAL ASTRONOMY—The student is taught the use of the sextant, transit instrument, clock, chronograph, etc.; the arrangement of the *American Ephemeris and Nautical Almanac;* and the general principles of time, latitude, longitude, and azimuth determination.

Throughout the year; Tu., Thu., at 9:00; supplemented by work at the observatory.

CIVIL ENGINEERING

PROFESSOR SIMS; ASSISTANT PROFESSOR MAGOWAN, MR. WEEKS, MR.————.

The civil engineering, and general scientific courses are practically identical throughout the freshman year, and changes may be made from one of these courses to the other until the beginning of the sophomore year; but after this time no subjects can be substituted for the required civil engineering studies without the approval of the professor in charge, and special permission of the Faculty. Students in one class will

not be allowed to take subjects in an advanced class without permission of the professor in charge.

So far as possible instruction is given by recitation from text-books. But where this method is not practicable, as in limes and cements, and in some of the subjects treated under the head of Civil Engineering, the first part of the recitation period is devoted to a quiz, and the remainder to a lecture.

It is expected that the University will inaugurate a regular course in municipal and sanitary engineering, and it is intended that such changes in the civil engineering course will be arranged in the coming year as will permit students to specialize along this line.

Saturdays, throughout the last three years of the course, are devoted to work in the field, shop, and laboratories, in making surveys, testing materials, constructing models, photography, and blue-printing.

For all work requiring no special preparation outside of the class room, such as drawing, field work, laboratory exercises and some of the work in graphical statics, not less than two hours will be required for one hour of credit.

FRENCH OR GERMAN—See course 1, 2, under French, page 99, and course 1, 2 under German, page 104.

Freshman year; five hours a week.

MATHEMATICS—See courses 1, 2, 5, 6, 8, and 9, under mathematics, pages 155 and 156.

Freshman and sophomore years; four hours a week.

PHYSICS—See courses 1, 2, 5, and 6, under physics, page 151.

Freshman year four hours a week, and junior year, first semester, four hours a week, second semester, two hours a week.

1. (*a*, *b*). DRAWING — For general scientific, electrical, mining, and civil engineering students. The course comprises mechanical and free hand drawing; oblique, isometric, cabinet, and orthographic projections and, lettering. Linear perspective, shades, and shadows. The work is given principally by means of personal instruction. The preliminary principles are studied from text and reference books, and their application is employed in making drawings from natural objects, models, and machinery. Mr. WEEKS.

Freshman year; two hours a week.

ENGLISH—See courses 1, 2, and 21, 22, under English, pages 111, 112.

Sophomore year; two hours a week, and junior year three hours a week.

2. SURVEYING, MAPPING AND LETTERING—For civil and mining engineering students and comprises the construction, adjustment, and use of the compass, solar compass, level, transit and plane-table. Recitations, lectures, and field work, making profiles, leveling, and drainage surveys. A section of land is surveyed and the location of all natural and artificial features determined and noted.

Pen topography, including the making of topographical symbols; platting of section survey from notes taken during the previous term, and making a finished map of the same. United States public land surveys, determination of true meridians, and of the rules and Supreme Court decisions governing resurveys and relocations of lost or obliterated corners. This work is followed by a course in free hand on mechanical lettering. Assistant Professor MAGOWAN and Mr. WEEKS.

Sophomore year, first semester; 5 times a week.

CHEMISTRY—See courses 1, 2, under Chemistry, page 149.

Sophomore year, first semester; four hours a week.

GEOLOGY—See course 1, under geology, page 146.

Sophomore year; two hours a week.

3. DESCRIPTIVE GEOMETRY AND TOPOGRAPHICAL SURVEYING—After the completion of course 2, this course is taken up and includes, in descriptive geometry, work in problems on the point, line, plane, simple geometrical solids, shades, shadows, single and double curved and warped surfaces, generation and development, and the solution of various practical problems, illustrated by models. In topographical surveying the work includes a study of the adjustments and methods of use of the stadia, gradienter and plane table, etc., and the making of finished contour maps from notes of surveys made by the students, with above mentioned instruments. During the winter months the time is devoted largely to descriptive geometry and drawing and in the spring and early summer to field work in topographical surveying. Assistant Professor MAGOWAN and Mr. WEEKS.

Sophomore year, second semester; four times a week.

4. RAILWAY CURVES AND EARTH WORK—A study of simple and compound curves and turnouts, and the methods of lay-

ing out, measuring and computing earth work and over-haul. Enough practice is given to familiarize the student with the methods employed in the field. Mr. WEEKS.

Sophomore year, second semester; two hours a week.

5. SHOP WORK—In this course work is taken up systematically and each student is required to finish in a satisfactory manner a specified number of pieces of work on each machine-tool and at the bench. The main object of the course is to familiarize the student with the nature, strength and properties of materials, and the methods employed by the mechanic artist rather than to have him attain skill as a workman.

Sophomore year, second semester, two times a week; and junior year, first semester two times a week.

ANALYTICAL AND APPLIED MECHANICS—See courses 37, 38, 39, and 40 in mathematics, page 157.

Junior year, first semester, four hours a week; second semester, three hours a week.

6. (*a*, *b*). GRAPHICS—The course is so arranged that the study of the graphical method of determining stresses is taken up simultaneously with the analytical method, it being the intention to assist the student to secure a mental photograph of the amount and kind of stress in the various members of structures, and thus provide him with a ready and impressive means of their comparison. The analysis, by this method of roof trusses is first taken up, followed by that of the plate girder, and simple, cantilever, and swing bridges, with parallel and inclined chords, under various conditions of loading as required in the standard specifications, both for actual wheel concentrations and equivalent uniform loads, after which a course in metal and masonry arches is given. Assistant Professor MAGOWAN and Professor SIMS.

Junior year, first semester, two hours a week; second semester, four hours a week.

7. (*a*, *b*). THEORY OF STRESSES—Including the analytical determination of stresses and strains in all the structures analyzed by the graphical method. See Graphics. Much time and study are devoted to this important subject. Assistant Professor MAGOWAN.

Junior year, first semester, two hours a week; second semester, four hours a week.

8. LIMES AND CEMENTS—The instruction in this subject consists in assigned references, and a course of lectures on the principal properties of limes, hydraulic limes, and natural and artificial cements, with a general discussion of the nature and uses of concrete, followed by laboratory work. Each student is required to make and test briquettes of various cements, which will be furnished him for the purpose, and to calculate their relative value per unit of strength. Professor SIMS.

Senior year, first semester; two hours a week.

9. STEAM ENGINE AND LOCOMOTIVE—The subject is treated under four heads, Heat, Steam, Engine, and Boiler. Under Heat is treated the economic combustion of fuel; under Steam the physical properties and the energy contained; under Engine the modern types of simple and compound engines are discussed, with special reference to the locomotive. The students are given practical problems and are required to ascertain the indicated horse-power from actual indicator cards, and to determine the efficiency of various engines from assigned data. The modern types of boilers are then discussed. Compressed air is also considered in connection with the transmission of power. Professor SIMS.

Senior year, first semester; two hours a week.

10. SANITARY ENGINEERING—The work offered under this course includes principally sewers and sewerage, and the cleaning of cities and towns. The separate and combined systems of sewers are studied and discussed. The details of various sewer systems, as set forth in plans and specifications for their construction, are carefully studied. The cost of construction, as taken from current contract prices, is especially noted, and the arrangement and action of plumbing fixtures are incidentally studied. The growing importance of this subject is fully realized, and it is the intention to keep the instruction fully abreast of the demands and needs of the present, and, when possible, anticipate future needs and methods. Assistant Professor MAGOWAN.

Senior year, first semester; two hours a week.

11. (*a*, *b*). STRUCTURAL DESIGNING—Prior to the work of designing proper, the students are required to make tracings or drawings of existing structures and compare the sections and connections of the various members with standard specifications. This work is followed by the design of trestles, highway and

railway bridges, dams, foundations, etc., of which complete working drawings are made. Professor SIMS.

Senior year; three hours a week.

12. (*a*, *b*). CIVIL ENGINEERING—This subject is given by recitations and lectures, and is designed for the purpose of instruction in the practical application of the theoretical principles of civil engineering. The regular recitations and lectures are frequently interrupted by designs and estimates of the cost of the work under discussion. The subjects are treated with thoroughness commensurate with their relative importance and are: railway reconnaissance and location; theory of maximum economy in grades and curves; location of highways and resistance to traction thereon; hydrography; building materials; natural and artificial stones; quarrying and blasting; reaching deep foundation beds in earth, quick sand, water and silt, with pneumatic tubes, caissons and coffer dams, and by the Poetsch-Sooysmith freezing process; ordinary earth work and methods of computation; masonry, classification of and specification for; theory and practice of retaining walls; earth, loose rock, and light masonry dams and weirs; the construction of brick, masonry, and concrete arches; tunneling and the use of explosives; highway and street construction; railroad construction and maintenance of way; improvement of rivers and harbors, and canal transportation; street railways and comparison of street railway motors. Professor SIMS.

Senior year; three hours a week.

13. (*a*, *b*). LABORATORY—This course includes instruction and practice in more advanced methods of testing and original investigation; selection and preparation of specimens, the influence of cross section on unit stress under various conditions, the distribution of stress in the materials of construction, the determination of resistance, the construction of models of bridges and other structures. Professor SIMS.

Senior year; two hours a week.

14. SPECIFICATIONS AND CONTRACTS—A study of various standard specifications, and a discussion of the effect of general clauses in contracts of same. Professor SIMS.

Senior year, first semester; two hours a week.

15. RESISTANCE OF MATERIALS — For civil, electrical, and mining engineers. This subject includes the strength, resistance, and properties of engineering materials, their be-

havior under stress, and the demonstration of the experimental laws, ultimate strength, elastic limit, resilience, etc., by tests in the laboratory. Professor SIMS.

Senior year, second semester; two hours a week.

16. HYDRAULICS — Instruction in this work is given by means of lectures, recitations, and laboratory work. The course includes the weight and pressure of water; head and center of pressure; computation and measurement of velocity and discharge through orifices, weirs, pipes, conduits, canals, and rivers; the investigation of meters and motors, and the determination of water power. Assistant Professor MAGOWAN.

Senior year, second semester; three hours a week.

17. WATER SUPPLY ENGINEERING—A study of the methods of collecting, storing, and distributing water. Assistant Professor MAGOWAN.

Senior year, second semester; two hours a week.

18. THESIS—At the close of the spring term of the senior year, an acceptable original thesis will be required from each student before graduation, unless equivalent work shall have been done on papers prepared for the Engineering Society. Professor SIMS.

MILITARY SCIENCE AND TACTICS

COLONEL GEORGE RITTER BURNETT, COMMANDANT

Instruction in these branches is prescribed for all male students of the College of Liberal Arts, except such as are especially excused. Students who, for any valid reason, may desire to be excused, must appear in person before the military committee, consisting of the commandant and five student captains, on the first drill day of each term, at the Armory, at 4:30 p. m. Those claiming exemption on account of physical disability, when the same is not apparent, must present to the committee a certificate certifying to the same, from the battalion surgeon. Students desiring to be excused from military duty at the time of their entrance or at any future time, on the grounds of service in the Spanish-American War, or at some recognized military institution, must present their discharge papers or credentials at the time of matriculation. All students not specially excused will report to the instructor on the Monday immediately following the beginning of the term, at the Armory, at 4:30 p. m.

ORGANIZATION

The department is organized for instruction into an infantry battalion, consisting of four companies; a battery of artillery consisting of two gun detachments; a signal corps; a band; and the necessary staff officers. The commissioned officers are selected from the senior, the sergeants from the junior, and the corporals from the sophomore class. The officers and non-commissioned officers are selected for character, military record, knowledge of drill regulations, and general aptitude.

UNIFORM

The prescribed uniform, known as the undress or fatigue uniform, consists of a dark blue suit, and, with the regulation army cap and white gloves, is worn on all occasions. The above uniform can be procured either before or immediately after entrance. A detailed description will be furnished on application to the President. Uniforms can be obtained in the vicinity at a cost of from $10.50 to $13.50.

COURSES OF INSTRUCTION IN MILITARY SCIENCE AND TACTICS

The courses of instruction are both practical and theoretical:

FIRST YEAR — Practical instruction three hours a week, 4:30 to 5:30. Practical instruction in infantry drill, school of the soldier, company and battalion drill, ceremonies, extended order, and general battle formations. Also in Butt's Manual.

Rifle firing on the University range at 100, 200, 300, 500, and 600 yards.

SECOND YEAR—Practical instruction; infantry, same as first year; artillery in service of field guns (foot battery), with mechanical movements and saber exercise; signal corps service and rifle firing, same as first year.

Theoretical: Winter term, one hour a week, 4:30 to 5:30. Recitations: United States army drill regulations and guard duty.

THIRD YEAR—Practical, same as second year.

Theoretical: Service of security and information, including general instruction in the theory of outposts, reconnaissance, advance and rear guards, cavalry screen, and maneuvering of troops on the march and field of battle.

FOURTH YEAR—Officers' school; practical, same as third year.

Theoretical: General instruction in the maneuvering of troops, strategical operations, and the planning of campaigns.

The work of the fourth year is optional.

ORGANIZATION OF BATTALION — 1901–1902

Major, - - - - - - - - - - W. O. Coast

STAFF AND NON-COMMISSIONED STAFF

First Lieutenant and Adjutant, - - - M. Brackett
First Lieutenant and Quartermaster, - - - J. F. Kirby
Major and Battalion Surgeon, - - Dr. A. A. Knipe
Second Lieutenant and Commissary, - - T. T. Spurgeon
Sergeant Major, - - - - - - - - A. A. Hess
Quartermaster Sergeant, - - - - G. H. Mulock
Color Sergeant, - - - - - - - - H. M. Pratt

COMPANY A

Captain, - - - - - - - - - - L. M. Butler
First Lieutenant, - - - - - - - A. H. Storck
Second Lieutenant, - - - - - - - J. W. Martin
First Sergeant, - - - - - - - F. Nugent
Sergeants, - - - - - - - R. D. Krebs, S. C. Doran, C. A. Dykstra, E. L. Kelley
Corporals, - - - - - - - B. A. Moffatt, E. R. Johnston, C. D. Williams, L. Alford, S. H. Welsh

COMPANY B

Captain, - - - - - - - - - A. G. Remley
First Lieutenant, - - - - - - - T. Cassady
Second Lieutenant, - - - - - - - E. V. Brose
First Sergeant, - - - - - - M. R. Charleton
Sergeants, - - - - - - - J. W. Fish, T. M. Mitchell, H. G. McClain, M. J. Joynt

Corporals, - - - - - - - - C. O. Briggs, A. A. Farnsworth, F. W. Coffin, C. R. Cross, E. G. Letts

COMPANY C

Captain, - - - - - - - - - H. S. Funson
First Lieutenant, - - - - - - - S. H. Dykstra
Second Lieutenant, - - - - - - -
First Sergeant, - - - - - - H. E. Spangler

Sergeants, - - - - - - - - F. Albert, C. H. Edmonson, G. E. Hill, C. H. Stryker

Corporals, - - - - - - - - J. G. Berryhill, W. F. Hellberg, H. L. Dye, H. P. Burgum

COMPANY D

Captain, - - - - - - - - - - F. G. Emry
First Lieutenant, - - - - - - - R. J. Clearman
Second Lieutenant, - - - - - - - A. C. Clapp
First Sergeant, - - - - - - - W. C. Henry

Sergeants, - - - - - - - - H. G. Watson, J. G. Walsh, G. T. Kemmerer, G. G. Hutchinson

Corporals, - - - - - - - - R. M. Fagan, R. L. Coburn, F. D. Kern, C. H. Hanson

BATTERY AND SIGNAL CORPS

Captain, - - - - - - - - - R. M. Anderson
First Lieutenant, - - - - - - - H. E. Hadley
Second Lieutenant, - - - - - - - E. M. Jones
First Sergeant, - - - - - - - J. A. Matson
Gunners, - - - - - - - - E. H. McCoy, C. P. Schenck

BAND

Director, - - - - - . - Captain O. A. Kuck
Drum Major, - - - - - - - - F. H. Luhman

BUGLE CORPS

Chief Trumpeter, - - - - - - - W. L. Baughn
Trumpeters, - - - - - - - - - J. W. Huebner, B. Hunt, W. Mc. D. Ball

Military Field Day, May 16

Winner of the Coast Sword, Captain F. G. Emry, Co. "D."

Winner of the H. J. Wieneke Medal, Captain R. M. Anderson commanding the battery.

Winner of the Yetter Medal No. 1, Sergeant J. W. Fish, Co. "B."

Winner of the Yetter Medal No. 2, B. A. Moffatt, Co. "A."

Winner of the Sueppel Medal, Private M. W. Emmert, Co. "C."

The Commandant's Medal was awarded to 1st Lieut. H. E. Hadley of the Battery Inspector of Rifle Practice, to be worn until the June competition, when it will go to the best shot in the Intercollegiate Team.

ACCREDITED HIGH SCHOOLS

The Board of Regents has adopted the following plan for the examination of high school pupils and for general high school inspection:

1. Any school may be placed upon the accredited list upon application of its superintendent or principal, and its board of directors, provided the Faculty of the College of Liberal Arts is satisfied as to its (*a*) course of study, (*b*) methods of teaching, (*c*) facilities for instruction.

2. The course of study of such a school must be adapted to fitting its graduates for one or more of the collegiate courses of the University, or it must be in the direct line of such preparation.

3. Whenever any accredited or other school requests it, its pupils may be examined by the University at a convenient time in any subject or subjects selected by the school authorities from the schedules of studies required for admission to the University, and each pupil will receive from the University a credit card for each subject passed.

4. The University shall provide for schools desiring the same, a syllabus of each of the subjects in which examination is to be taken.

5. All accredited schools shall be inspected at the pleasure of the University, the expense of the inspection to be borne by the University.

6. The authorities of acredited schools should report annually to the University all changes made in the courses of study and submit a list of names of the instructors employed in the high school with subjects taught by each.

The following revised rules governing the accrediting of high schools have been adopted by the Faculty of the College of Liberal Arts, and are now in force. The attention of the authorities of accredited schools is called to the revised rules in order that they may make such changes in their courses of study and in their plans of work as will enable them fully to conform to the rules.

RULES GOVERNING THE ACCREDITING OF HIGH SCHOOLS

High Schools meeting the following conditions may, at the option of the Faculty of the College of Liberal Arts, be accredited as making full preparation for one or more College courses; and graduates of such schools will be admitted to the University without being subject to any examination except that in English and English grammar, which is required of all entering students:

1. The course of study should not be less than four years of thirty-six weeks each in length, following an elementary course not less than eight years in length.

2. The course of study should require of each pupil not more than four recitations daily.

3. The entire time of at least three teachers should be given to instruction in high school branches.

4. The quality of the instruction given and the character of the text-books used should be approved by the Faculty.

5. Schools seeking considerable credit in science should demonstrate their ability to do successful laboratory work.

6. Schools seeking considerable credit in history and English should give evidence of a special library equipment for teaching these branches.

Private academics, seminaries, normal schools, or other secondary schools, meeting the conditions mentioned above, or their equivalent, may be accepted on the same basis as high schools.

LIST OF ACCREDITED SCHOOLS

There are doubtless other schools which are entitled to places on one or the other of these lists, but because they have not furnished the data necessary to enable the University authorities to come to a safe conclusion in regard to their proper places in the lists, or because they have not signified a desire to come into accredited relations with the University, they are for the present omitted, without prejudice. Applicants presenting themselves from secondary schools, not included in the list of accredited schools, will be admitted only upon examination.

The following schools have been accredited by the Faculty of the College of Liberal Arts as making full preparation for one or more of the courses of the College of Liberal Arts:

HIGH SCHOOLS

Ackley,
Adel,
Albia,
Algona,
Ames,
Anamosa,
Atlantic,
Avoca,
Bedford,
Belle Plaine,
Boone,
Britt,
Brooklyn,
Burlington,
Capital Park, Des Moines,
Carroll,
Cedar Falls,
Cedar Rapids,
Centerville,
Charles City,
Cherokee,
Clarinda,
Clarion,
Clinton,
Columbus Junction,
Corning,
Corydon,
Council Bluffs,
Cresco,
Creston,
Davenport,
Decorah,
Denison,
Des Moines, E.,
Des Moines, N.,
Des Moines, W.,
Dubuque,
Eagle Grove,
Eldora,
Emmetsburg,
Estherville,
Fairfield,
Forest City,
Fort Dodge,
Fort Madison,
Geneseo, Ill.,
Glenwood,
Green,
Greenfield,
Grinnell,
Guthrie Center,
Guthrie County,
Hamburg,
Hampton,
Harlan,
Humboldt,
Ida Grove,
Independence,
Iowa City,
Iowa Falls,
Jefferson,
Keokuk,
Knoxville,
Lake City,
Lamoni,
LeMars,
Leon,
Lyons,
Manchester,
Maquoketa,
Marengo,
Marion,

Marshalltown,
Mason City,
McGregor,
Missouri Valley,
Moline, Ill.,
Montezuma,
Monticello,
Mt. Ayr,
Muscatine,
Nashua,
Nevada,
New Hampton,
Newton,
Odebolt,
Oelwein,
Onawa,
Orange City,
Osage,
Osceola,
Oskaloosa,
Ottumwa,
Parkersburg,
Perry,
Red Oak,
Reinbeck,
Rockford,
Rock Rapids,
Sanborn,
Sheldon,
Shenandoah,
Sibley,
Sigourney,
Sioux City,
Spencer,
St. Mary's, Iowa City,
Storm Lake,
Stuart,
Postville,
Taylor Tp., Taylorville, Ill.,
Tipton,
Traer,
Villisca,
Vinton,
Washington,
Waterloo, East,
Waterloo, West,
Waukon,
Waverly,
Webster City,
West Liberty,
Wilton,
Williamsburg.

OTHER SCHOOLS

Cedar Valley Seminary, Osage,
Charles City College,
Decorah Institute,
Denison Normal School,
Dexter Normal College,
Epworth Seminary,
Howe's Academy, Mt. Pleasant,
Iowa City Academy,
Jewell Lutheran College, Jewell,
Lincoln Academy, Lincoln, Neb.,
Michigan Military Academy, Orchard Lake, Mich.,
Mount St. Joseph Academy, Dubuque,
Sac City Institute,
St. Agatha's Seminary, Ia. City
St. Francis Academy, Council Bluffs,
Washington Academy,
Whittier College, Salem,
Wilton German-English College,
Woodbine Normal School.

The work done in the schools named below is regarded as of sufficient merit to entitle them to recognition by the University.

In some of these schools enough work is done to entitle their pupils to enter the University with the conditions allowed. In some cases applications have been made to be placed upon the accredited list, but action on these applications has been deferred until these schools can be inspected by a representative of the University.

All accredited schools having but two teachers in the high school are expected to work under the rules prescribed for such schools by the University and the colleges of the state. These rules are set forth at length in Bulletin No. 2 of the Department of Education, a copy of which will be sent on application.

Properly certified work from these schools will be received for the present so far as this work meets the preparatory requirements of the University.

Adair,
Allerton,
Alton,
Anita,
Audubon,
Bloomfield,
Brighton,
Chariton,
Charter Oak,
Clearfield,
Clear Lake,
Colfax,
Coon Rapids,
Correctionville,
DeWitt,
Dysart,
Eldon,
Elkader,
Exira,
Farmington,
Fayette,
Fonda,
Fontanelle,
Garner,
Glidden,
Grand Junction,
Grundy Center,
Hartley,
Holstein,
Hubbard,
Keosauqua,
Kingsley,
Lake Mills,
Lime Springs,
Manning,
Mapleton,
Mechanicsville,
Milton,
Morning Sun,
Moulton,
Mt. Pleasant,
Neola,
New Sharon,
North English,
Northwood,
Oak Park, Des Moines,
Pella,
Riceville,

Richland,
Rolfe,
Sac City,
Shelby,
Shell Rock,
Sioux Rapids,
Springdale,
Springville,
State Center,
Tabor,
Tama City,
Victor,
Wapello,
West Union,
Winfield,
Calhoun Co. Normal School,
Hawarden Normal School,
Nora Springs Seminary,
St. Ansgar Seminary.

UNIVERSITY EXTENSION

The University of Iowa was among the first in the United States to attempt to popularize higher education by organizing courses of lectures by University professors at points remote from the Institution. For years this work has been carried forward with no small success in all the more important cities of Iowa. As will be seen by reference to the special Announcement on this subject, the University seeks to meet a two-fold demand for public addresses; it aims to give courses of popular lectures; and it offers special service to the high schools of the State in the way of special lectures on various high school topics, as well as addresses suitable for various special occasions, high school anniversaries, commencements, etc.

The University of Iowa owing to limited resources does not attempt at present to organize classes which shall accomplish work leading to University credits or degrees, but it does offer series of lectures, often fully illustrated by apparatus and stereopticon, which serve to bring before a popular audience the very latest and best results of research and discovery in every department of human learning. Within certain obvious limits, all the best that is offered at Iowa City is at the service of every community in Iowa.

As far as courses of lectures are concerned, these are generally presented in each community before some local organization, a church society, an organization of University alumni, of college people, or simply of those desiring a course of lectures. All interested are referred to the Announcement of University Extension Lectures, to be had by addressing the President of the University.

For High School addresses special arrangement may be made with the University Inspector of schools, Professor J. F. Brown; or, the Director of University Extension may be addressed.

GRADUATE COLLEGE

THE GRADUATE COLLEGE

FACULTY*

GEORGE EDWIN MACLEAN, B. A., 1871; M. A., 1874, Williams; B. D., 1877, Yale; PH. D., 1883, Leipzig; LL. D., 1895, Williams.

603 College St. (Old Capitol)

AMOS NOYES CURRIER, B. A., 1856; M. A., 1859, Dartmouth; LL. D., 1893, Des Moines.

Professor of Latin Language and Literature, and Dean of the College of Liberal Arts, 1867. 32 Bloomington St. (108 Liberal Arts)

SAMUEL CALVIN, M. A., 1874, Cornell; PH. D., 1888, Lenox.

Professor of Geology, 1874.
522 N. Clinton St. (Science Hall, first floor)

THOMAS HUSTON MACBRIDE, B. A., 1869; M. A., 1873, Monmouth; PH. D., 1895, Lenox.

Professor of Botany, 1878.
728 Washington St. (Science Hall, second floor)

LAUNCELOT WINCHESTER ANDREWS, B. PH., 1875, Yale; M. A., PH. D., 1882, Goettingen.

Professor of Chemistry, 1885.
229 S. Johnson St. (Chemical Laboratory)

GEORGE THOMAS WHITE PATRICK, B. A., 1878, Iowa; B. D., 1885, Yale; PH. D., 1888, Johns Hopkins.

Professor of Philosophy, 1887. 704 N. Dubuque St. (209 Liberal Arts)

CHARLES BUNDY WILSON, B. A., 1884; M. A., 1886, Cornell University.

Professor of German Language and Literature, and Secretary of the University Senate, 1888. 919 E. College St. (101 Liberal Arts)

ANDREW ANDERSON VEBLEN, B. A., 1877; M. A., 1880, Carleton College.

Professor of Physics, 1883. 707 N. Dubuque St. (Hall of Physics)

LAENAS GIFFORD WELD, B. S., 1883; M. A., 1885, Iowa.

Professor of Mathematics, and Dean of the Graduate College, 1886.
612 N. Dubuque St. (113 Liberal Arts)

*The faculty of the University numbers over one hundred and sixty professors, instructors and assistants. The following list contains the names of only those in the departments offering courses of instruction for graduate students.

CHARLES CLEVELAND NUTTING, B. A., 1880; M. A., 1882, Blackburn University.

Professor of Zoology, and Curator of the Museum of Natural History, 1886. 922 E. Washington St. (Science Hall, third floor)

ISAAC ALTHAUS LOOS, B. A., 1876; M. A., 1879, Otterbein; B. D., 1881, Yale; D. C. L., 1898, Penn Coll.

Professor of Sociology and Political Philosophy, and Director of the School of Political and Social Science, 1889.
22 E. Bloomington St. (205 Liberal Arts)

ELBERT WILLIAM ROCKWOOD, B. S., 1884, Amherst; M. D., 1895, Iowa.

Professor of Chemistry and Toxicology, and Secretary of the Faculty of the College of Medicine, 1888.
1011 Woodlawn. (Chemical Laboratory)

WALTER LAWRENCE BIERRING, M. D., 1892, Iowa.

Professor of Bacteriology and Pathology, 1893.
Cor. Governor St. and Iowa Ave. (1 Liberal Arts)

WILLIAM CRAIG WILCOX, B. A., 1888; M. A., 1891, University of Rochester.

Professor of History, and Secretary of the Faculty of the College of Liberal Arts, 1894. 629 N. Dubuque St. (222 Liberal Arts)

FREDERIC C. L. VAN STEENDEREN, M. A., 1893, Penn Coll.

Professor of French Language and Literature, 1893.
309 Church St. (120 Liberal Arts)

ALFRED VARLEY SIMS, C. E., 1888, Pennsylvania.

Professor of Civil Engineering, 1895. Bloom Terrace. (South Hall)

GILBERT LOGAN HOUSER, B. S., 1891; M. S., 1892, Iowa; PH. D., 1901, Johns Hopkins.

Professor of Animal Morphology and Physiology, 1892.
422 Iowa Ave. (Science Hall, first floor)

BENJAMIN FRANKLIN SHAMBAUGH, B. PH., 1892; M. A., 1893, Iowa; PH. D., 1895, Pennsylvania.

Professor of Political Science, 1895.
219 N. Clinton St. (201 Liberal Arts)

WILLIAM ROBERT WHITEIS, B. S., 1892; M. D., 1895; M. S., 1895, Iowa.

Professor of Histology and Embryology in the College of Medicine, 1898. 425 Iowa Ave. (16 Liberal Arts)

CLARK FISHER ANSLEY, B. A., 1890, Nebraska.

Professor of English, 1899. 1041 Woodlawn. (227 Liberal Arts)

LEONA ANGELINE CALL, B. A., 1880; M. A., 1883, Iowa.

Professor of Greek Language and Literature, 1885.
21 N. Dubuque St. (106 Liberal Arts)

HENRY EVARTS GORDON, B. A., 1879; M. A., 1901, Amherst.

Professor of Public Speaking, 1900. 419 Iowa Ave. (312 Liberal Arts)

ARTHUR FAIRBANKS, B. A., 1886, Dartmouth; PH. D., 1890, Freiburg, i. B.

Professor of Greek Literature and Archæology, and Secretary of the Graduate Faculty, University Editor, 1900.
7 E. Bloomington St. (310 Liberal Arts)

ALDEN ARTHUR KNIPE, M. D., 1896, Pennsylvania.

Director of Physical Culture, 1900. (52 Liberal Arts)

FREDERICK ELMER BOLTON, B. S., 1893; M. S., 1896, Wisconsin; PH. D., 1898, Clark.

Professor of the Science and Art of Education, 1900.
1019 College St. (217 Liberal Arts)

CHARLES SCOTT MAGOWAN, C. E., 1884; M. A., 1887, Iowa.

Assistant Professor of Civil Engineering, 1886.
304 Summit St. (South Hall)

BOHUMIL SHIMEK, C. E., 1883, Iowa.

Assistant Professor of Botany, and Curator of the Herbarium, 1895. In charge of Botany in the Summer Session.
529 Brown St. (Science Hall, second floor)

HENRY FREDERICK WICKHAM, M. S., 1894, Iowa.

Assistant Professor of Zoology, and Assistant Curator of the Museum of Natural History, 1894. 911 Iowa Ave. (Science Hall, third floor)

ARTHUR G. SMITH, B. PH., 1891; M. A., 1895, Iowa.

Assistant Professor of Mathematics, 1893.
West Side. (12 Liberal Arts)

*FRANKLIN HAZEN POTTER, B. A., 1892; M. A., 1895, Colgate.

Assistant Professor of Latin, 1895. 527 N. Linn St. (111 Liberal Arts)

CARL EMIL SEASHORE, B. A., 1891, Gustavus Adolphus; PH. D., 1895, Yale.

Assistant Professor of Philosophy, 1897. In charge of Philosophy and Psychology in the Summer Session.
208 Fairchild St. (211 Liberal Arts)

ALICE YOUNG, B. L., 1896, Minnesota.

Assistant Professor of English, and Dean of Women, 1900.
111 N. Clinton St. (117 Liberal Arts)

HARRY GRANT PLUM, B. PH., 1894; M. A., 1896, Iowa.

Assistant Professor of History, 1900.
419 N. Dubuque St. (315 Liberal Arts)

CLARENCE WILLIS EASTMAN, B. S., 1894, Worcester Polytechnic; M. A., PH. D., 1898, Leipzig.

Assistant Professor of German, 1898.
430 N. Clinton St. (8 Liberal Arts)

*WILLIAM ROLLA PATTERSON, B. Di., 1888; B. S., 1889, Iowa State Normal; B. PH., 1895, Iowa; PH. D., 1898, Pennsylvania.

Assistant Professor of Statistics and Economics, 1898.
505 Washington St. (209 Liberal Arts)

*Absent on leave.

RUSSELL D. GEORGE, M. A., 1898, McMaster University, Toronto.
Assistant Professor of Geology, 1900. 222 Ronalds St. (Hall of Science)

JOHN FRANKLIN BROWN, B. PH., 1889; M. A., 1895, Earlham; PH. D., 1896, Cornell.
Assistant Professor of the Science and Art of Education, and Inspector of High Schools, 1901. 19 Market St. (216 Liberal Arts)

BERTHA GILCHRIST RIDGWAY,
Librarian, 1898. 4 Jefferson St. (General Library, Liberal Arts)

FREDERIC BERNARD STURM, B. A., 1892, Michigan.
Assistant Professor of German, 1892.
423 Iowa Avenue. (7 Liberal Arts)

JOSEPH JASPER MCCONNELL, B. A., 1876; B. Di., 1878; M. A., 1880, Iowa.
Lecturer on the Science and Art of Education, 1891. Cedar Rapids

LUTHER ALBERTUS BREWER, B. A., 1883; M. A., 1886, Pennsylvania College.
Lecturer on Journalism, University Publisher, 1900. Cedar Rapids

HERBERT C. DORCAS, B. PH., 1895, Iowa.
Instructor in Pedagogy, and University Examiner, 1895.
427 Ronalds St. (218 Liberal Arts)

LOUISE ELIZABETH HUGHES, B. PH., 1878; M. A., 1881; B. A., 1899, Iowa.
Instructor in Latin, 1896. 122 N. Capitol St. (112 Liberal Arts)

CARL LEOPOLD VON ENDE, B. S., 1893; M. S. 1894, Iowa; PH. D., 1899, Goettingen.
Instructor in Chemistry, 1899. 220 S. Johnson St. (Chem. Lab'y)

JOHN VAN ETTEN WESTFALL, B. S., 1895, Cornell University; PH. D., 1898, Leipzig.
Instructor in Mathematics, 1899. 127½ S. Dubuque St. (13 Liberal Arts)

JOHN J. LAMBERT, B. Di., 1896; M. Di., 1897, Iowa State Normal; B. PH., 1899; M. S., 1901, Iowa.
Instructor in Animal Morphology and Physiology, 1898.
304 Davenport St. (Science Hall)

GEORGE T. FLOM, B. L., 1893, Wisconsin; M. A., 1894, Vanderbilt; PH. D., 1899, Columbia.
Assistant Professor in charge of Scandinavian Languages and Literature, 1900. 124 Church St. (10 Liberal Arts)

SIVERT N. HAGEN, B. A., 1896, Luther College; PH. D., 1900, Johns Hopkins.
Instructor in English, 1900. 308 Summit St. (207 Liberal Arts)

CHARLES F. LORENZ, B. S., 1897; M. S., 1898, Iowa.
Instructor in Physics, 1900. 215 Ronalds St. (Hall of Physics)

STEPHEN HAYES BUSH, B. A., 1901; M. A., 1902, Harvard.
Instructor in French, 1901. 124 Church St. (120 Liberal Arts)

JOHN THOMAS MCCLINTOCK, B. A., M. D.,
Demonstrator of Anatomy, Pathology and Bacteriology in the College of Medicine. 218 E. Davenport St. (Medical Building)

FRANK NEWTON BRINK, M. S.,
Instructor in Chemistry, College of Medicine.
319 Church St. (Chemical Laboratory, first floor)

CHARLES WILLIS JOHNSON, PH. C., 1896; B. S., 1900, Michigan.
Instructor in Chemistry, 1901. 507 S. Dubuque St. (Chem. Lab.)

SAM BERKELEY SLOAN, B. A., 1899, Nebraska.
Assistant Instructor in English, 1899.
506 N. Linn St. (118 Liberal Arts)

CLYDE B. COOPER, B. A., 1897, Nebraska.
Assistant Instructor in English, 1900.
209 Bloomington St. (5 Liberal Arts)

SIMEON E. THOMAS, B. S., 1898, Upper Iowa University; M. A., 1901, Iowa.
Assistant Instructor in Political Science, 1900.
229 Iowa Avenue. (203 Liberal Arts)

MABEL R. MORGAN,
Assistant in Physical Training for Women, 1900. 10 Gilbert St.

WILLIAM E. BECK, B. S., 1900, Iowa.
Assistant Instructor in Mathematics, 1900.
518 S. Clinton St. (14 Liberal Arts)

HENRY WALDGRAVE STUART, B. PH., 1895, California; PH. D., 1900, Chicago.
Assistant Instructor in Philosophy, 1901.
725 N. Linn St., (214 Liberal Arts)

GAYLORD D. WEEKS, B. S. in C. E., 1901, Iowa.
Assistant Instructor in Civil Engineering, 1900.
304 Summit St. (South Hall)

BERTHA A. WILLIAMS, B. PH., 1888, Iowa.
Assistant in French, 1900. West Side

HENRY ALBERT, B. S., 1900, Iowa.
Fellow in Pathology.

ALICE ANKENEY, B. A., 1897, Wells College.
Fellow in Chemistry, 1901. 21 N. Dubuque St.

JOHN GABBERT BOWMAN, B. A., 1899, Iowa.
Assistant in English, 1901. 215 Ronalds St.

HUGH STRAIGHT BUFFUM, B. A., 1901, Iowa.
Scholar in Public Speaking, 1901. 406 N. Gilbert St.

HARRY E. BURTON, B. A., 1901, Iowa.
Scholar in Mathematics, 1901. 517 N. Linn St.

GEORGE LUTHER CADY, B. A., Olivet College.
Honorary Fellow in Sociology, 1900. 25 N. Dubuque St.

JACOB E. CONNER, B. A., 1891, Iowa.
Fellow in Sociology and Political Philosophy, 1900. 229 Iowa Avenue

HELEN M. EDDY, B. A., 1900, Iowa.
Fellow in Latin, 1901. 4 Jefferson St. (112 Liberal Arts)

FRANK HARMON GARVER, B. A., 1898, Upper Iowa University.
Fellow in History, 1901. 114 Fairchild St.

MYRON C. GASTON, B. A., 1901, Tabor College.
Scholar in Greek, 1901. 121 Burlington St.

*JAMES ELLIS GOW, B. PH., 1901, Iowa.
Scholar in Botany, 1900. 122 N. Capitol St.

VICTORIA HRUSKA, B. A., 1901, Iowa.
Scholar in French, 1901. 114 N. Capitol St.

PERCIVAL HUNT, B. A., 1900, Iowa.
Fellow in English, 1900. 329 N. Dubuque St.

KIYOSHI KAWAKAMI, B. L., 1899, Tokyo Law College; B. A., 1900, Aoyama Anglo-Japanese College, Tokyo.
Fellow in Political Science, 1901. 325 S. Dubuque St.

JAMES H LEES, B. Di., 1893; M. Di., 1897, Iowa State Normal; B. A., 1901, Coe College.
Scholar in Geology, 1901. 220 E. Burlington St.

†J. H. PAARMANN, B. S., 1901, Iowa.
Scholar in Zoology, 1901. 410 Ronalds St.

MARY E. POLK, B. A., 1900, Iowa.
Scholar in English, 1901. 26 Jefferson St.

LEE PAUL SIEG, B. S., 1900; M. S., 1901, Iowa.
Fellow in Physics, 1900. (Hall of Physics)

CHARLES LEONARD SMITH, B. A., 1891, Iowa.
Scholar in Histology, 1901.

FRANK ALBERT STROMSTEN, B. S., 1900, Iowa.
Fellow in Animal Morphology, 1900. 1017 College St.

CHARLES MARTEL WERTS, B. S., 1900, Iowa.
Fellow in Medical Chemistry, 1901.

CHARLES ALLYN WILLIAMS, B. A., 1899; M. A., 1901, Iowa.
Fellow in German, 1901. 413 Iowa Avenue

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* Resigned, January, 1902.

† Recommended for the degree of Bachelor of Science, Sept. 16, 1901.

MABEL CLARE WILLIAMS, B. PH., 1899, Iowa.
Assistant in Philosophy, 1899. 413 Iowa Avenue. (215 Liberal Arts)

MARK WAYNE WILLIAMS, B. A., 1898, Iowa.
Fellow in Psychology, 1901. 304 Davenport St.

GEORGE CHESTER WISE, B. PH., 1900, Iowa.
Scholar in German, 1901. 121 E. Bloomington St.

THE ADMINISTRATIVE COUNCIL OF THE GRADUATE COLLEGE

DEAN WELD, Chairman; Professor FAIRBANKS, Secretary; Professors ANDREWS, ANSLEY, BIERRING, NUTTING, PATRICK, WILCOX.

THE ADMINISTRATION OF THE GRADUATE COLLEGE

The excellent opportunities offered by the State University of Iowa for the pursuit of advanced studies in various branches of knowledge have from the first attracted considerable numbers of college graduates to the institution. As the opportunities for advanced study multiplied, the number of such students became larger and several of the departments found it expedient to offer courses specially designed for graduates.

The first noteworthy step toward the development of a graduate college was taken in 1888, when the practice of conferring the degree of Master of Arts upon all bachelors of three years' standing who had been engaged in professional or literary work was definitely discontinued. In 1893 the graduate work of the University had become of such importance as to warrant the appointment of a standing committee for its supervision and for the definition of the terms upon which the degrees of Master of Arts and Master of Science might be conferred. The policy inaugurated by this committee differed but little from that in operation at the present time and its effect was immediate and salutary. The number of advanced courses open to graduates steadily increased and the facilities for successfully prosecuting special work were greatly improved.

In 1898 applications for admission to candidacy for the degree of Doctor of Philosophy were for the first time accepted, and then only from graduate students in residence at the University. The question of accepting non-resident candidates for the degrees of Master of Arts and Master of Science was disposed of in 1899 when, upon the recommendation of the standing committee on graduate students, it was voted by the Faculty that no candidate *in absentia* would be accepted after October 1, 1900, and that all such existing candidacies shall lapse in June, 1903.

The Graduate College was instituted by action of the Board of Regents on June 7, 1900. Besides recognizing the College

and appointing a dean the Board established certain fellowships and scholarships, the number of which has been increased from year to year. The first annual announcement was issued in August, 1900.

A council of seven members, appointed by the President of the University, co-operates with the dean in the administration of the College.

A wide range of advanced courses of study is already offered to a large and increasing number of students.

ADMISSION

Any person known to be a graduate in good standing of an accredited college of liberal arts may be admitted to the Graduate Study. Admission to specific courses of study to be taken in candidacy for an advanced degree, however, can only be granted upon the recommendation of the respective professors in charge of such courses.

There are no tuition fees in the Graduate College. A diploma fee of $10 is charged for each advanced degree conferred.

FELLOWSHIPS AND SCHOLARSHIPS

No definite announcement can as yet be made regarding the fellowships and scholarships available for the academic year 1902–1903. There are at present twenty-four of these appointments and it is hoped that this number may be increased to thirty.

The value of a scholarship has been fixed at $125 per year and that of a fellowship at $225, with exemption from all University fees in each case. In general, a fellowship is granted only to the graduate student of at least one year's standing, while a scholarship may be conferred upon graduation from any accredited college of liberal arts.

Applications for graduate appointments must be made to the President upon blanks prepared for the purpose and obtainable from any officer of the University. All applications to be acted upon at the spring meeting of the Board of Regents must be submitted before March 1st; those to be acted upon at the June meeting, before May 15th.

The following regulations, adopted by the Faculty of the Graduate College and authorized by the Board of Regents, are in force:

1. Each fellow or scholar will be required to pursue his studies under the direction of the professors in charge of his major and minor courses and to render to the University such services as may be required of him by the President in consultation with the professor in charge of his major course; it being understood that the maximum amount of service to be expected of a scholar shall be the equivalent of teaching three hours or of superintending laboratory work for six hours a week, while that required of a fellow may not exceed twice the above amount.

2. Each student holding a fellowship or a scholarship, shall be in actual attendance at the University throughout the academic year for which he is appointed, unless excused by the President and the head of his department.

3. The applicant for a fellowship or a scholarship will be expected to demonstrate his capacity for original research and must give evidence of marked attainments in one or more lines of study. Testimonials from responsible persons as to the general worthiness of the candidate must accompany the application, though no appointment to a fellowship will be made upon recommendations not supported by specimens of the applicant's original work.

4. Each application for a fellowship or a scholarship shall, if approved by the head of the department in which the appointment is sought, be referred by him to the council of the Graduate College. The council shall consider all applications thus approved and referred and submit a report to the Graduate Faculty, not later than the third Friday in March, recommending a list of appointments assigned to the several departments as equitably as may be, the relative qualifications of the several applicants having been accorded due weight. This report, as amended by the faculty, shall, upon the approval of the President, be transmitted to the Board of Regents or its executive committee for final action at the spring meeting.

A second assignment of fellowships and scholarships may be made in the same manner at the June meeting of the Board.

5. All graduate appointments shall be for one year. Both fellows and scholars may be recommended for re-appointment at the discretion of the council, but for a second year only.

6. Any graduate appointment may be withdrawn at any time upon the concurrent recommendation of the President of the University and the head of the department in which the appointment is held.

ADVANCED DEGREES

The Graduate College confers the following degrees: Master of Arts, Master of Science, Doctor of Philosophy, Civil Engineer, Electrical Engineer. The requirements for Master of Arts degrees and Doctor of Philosophy are fully explained below.

MASTER OF ARTS AND MASTER OF SCIENCE

The degree of Master of Arts, or of Master of Science, will be conferred upon resident graduates under the following conditions:

1. The candidate must be a graduate of this University, or of an accredited university or college.

2. He must have pursued, during one or more years, a course of graduate study at this University, covering one major and one minor subject; in a two years' course, one major and two minors being allowed. His studies during this time are to be under the immediate supervision and control of the professors immediately concerned and to be subject to the approval of the faculty.

3. In all cases the minor or minors must be closely allied to the major subject; provided, however, that any candidate in residence for two or more years may select a modern language as a second minor in his course.

4. The candidate must submit a thesis of at least 5,000 words, showing marked attainment in some branch of learning. The subject of this thesis must be announced to the faculty for approval not later than the second Friday in December, and the thesis itself must be presented to the examining committee at a date to be set by the professor in charge of the thesis work, but not later, in any case, than May 20 of the year in which the degree is expected.

5. He must, at the close of his course, pass a satisfactory examination, both oral and written, conducted by a committee which shall consist of three professors, selected by the faculty for this purpose.

6. A graduate student in any professional college of the University, pursuing work in the Graduate College, may become a candidate for an advanced degree: but two years of such candidacy shall be necessary to fulfill the requirement of one year imposed by rule 2 above, the time to be reckoned from the date of the application for the advanced degree.

7. The degree of Master of Arts will be granted only upon the completion of a course mainly literary in character; the degree of Master of Science, after one mainly scientific.

Non-resident graduates may receive the degree of Master of Arts, or of Master of Science, on complying with the following conditions in addition to or modifying those enumerated for residents. Since October 1, 1900, no candidate *in absentia* has been accepted, and all existing candidacies *in absentia* will lapse in June, 1903.

1. The candidate will be required to outline a course of study, comprising a major and one allied minor subject, which must be approved by a committee of two or more professors appointed to pass upon it.

2. He shall at the close of each academic year present a report, which should comprise a complete synopsis of the year's work, naming topics studied and authors read. These annual reports are expected to be specific and comprehensive.

3. His graduate studies must extend over three years, although in exceptional cases, where the candidate devotes a large part of his time to study, a shorter course, but in no case less than two years may be accepted.

4. Candidates for the master's degree who have graduated elsewhere are required to spend at least one year in residence at this University.

DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy will be granted under the following conditions:

I. Prerequisites.

1. The candidate must have received the bachelor's degree either from this institution or from some other of equal rank.

2. He must present evidence of having completed a satisfactory amount of undergraduate work in the subjects proposed for investigation for this degree.

3. He must possess a knowledge of French and German at least sufficient for purposes of research.

II. Conditions of Candidacy.

1. At least three years of graduate study will ordinarily be required. Of these, two must be in residence and the last year prior to receiving this degree must be spent at this University.

2. In making formal application for this degree the candi-

date shall select one major study and one or two minors. The minor study or studies shall be closely allied to the major and shall be such as, with it, to constitute a single field of research.

3. The application of the candidate setting forth the line of research proposed shall be approved and endorsed by the professor or professors under whose direction it is proposed to prosecute the work.

III. Dissertation.

1. On completion of his work the candidate shall submit to the faculty a formal dissertation which shall not only exhibit evidence of original research, but shall in itself be a contribution to the sum of human knowledge.

2. The dissertation must be in acceptable literary form; although its acceptance will depend chiefly upon the subject matter.

3. The subject of the proposed dissertation must be submitted to the faculty not later than the last Friday in September of the year preceding that in which the degree is expected; and a copy of the dissertation, printed or type-written, must be in the hands of the Secretary of the Faculty not later than the 20th day of May of the year in which the degree is expected. In case the dissertation offered is accepted by the faculty and the candidate passes satisfactorily the examination provided for in the next section following, he shall, prior to receiving his degree, deposit with the librarian of the University twenty-five printed copies of the dissertation so accepted.

IV. Examinations.

1. At such time as may be agreed upon by the candidate and the professors in charge of his work, he shall pass an examination, both oral and written; the examination to be conducted by the professors immediately concerned,—the written privately, the oral in the presence of the faculty. For purposes of this examination five members of the faculty of the Graduate College shall constitute a quorum.

CIVIL ENGINEER AND ELECTRICAL ENGINEER

Graduates from the engineering courses receive the degree of Bachelor of Science in Civil or Electrical Engineering. The degree of Civil Engineer or Electrical Engineer will be conferred on graduates who have practised their respective professions for at least three years, and who have submitted an approved thesis and passed a satisfactory examination.

COURSES OF STUDY FOR GRADUATES

It is the aim of the University to furnish facilities for advanced study commensurate with the demand. No set courses of study leading to any of the advanced degees are provided; each candidate for one of these degrees pursuing an independent line of study, in which regular university courses are usually combined with special research work, original in character, laid out with the advice of the professors and carried out under their direction.

The elastic nature of the elective system here in operation renders the more advanced courses in many branches as valuable to the graduate as to the advanced undergraduate. The seminaries, for example, hold out encouragement and opportunities for a great deal of original study and research, as do also a number of the advanced courses in the different departments. In the following pages will be found grouped together those courses which are of special interest to graduates. In every case courses intended primarily for graduates (C) are distinguished from those open also to undergraduates (B). To the former undergraduates are admitted only under exceptional circumstances and subject to the discretion of the professor in charge of the work.

The courses intended only for undergraduates (A) are not here given, but may be found in the current Announcement of the College of Liberal Arts. The numbers given to the several graduate courses are continuous with those designating the undergraduate courses.

Additional graduate courses will be arranged in connection with the summer session for the benefit of these unable to do work in residence during the regular academic year. Details as to these courses are given in the Announcement of the Summer Session of 1902, or may be obtained by correspondence with the professors concerned.

GREEK LANGUAGE AND LITERATURE ARCHÆOLOGY

PROFESSOR FAIRBANKS; PROFESSOR CALL

Ordinarily candidates for advanced degrees are expected to have completed four years of work in Greek before undertaking the work of the graduate courses. The aim of these courses is to enlarge the student's view of the field in which he is working, to train him in correct methods of study and investigation, and to encourage him to pursue lines of original research. In connection with each course the student is urged to read Greek authors both widely and accurately. The general aim of the first year of graduate work will be to render the knowledge he has gained in earlier work more accurate, and to place it more completely at his command. In the preparation of the thesis offered for an advanced degree he has the benefit of the constant direction and advice of his instructor.

During the last year the library has spent a considerable sum of money on books for the department of Greek; not only the texts of classic authors, but also the more important annotated editions have been obtained, the sets of periodicals containing the results of philological and archæological investigations are being placed on the shelves, and in some lines of archæology the standard publications have already been secured. The University has also begun a collection of photographs and lantern slides which are used to illustrate the courses in archæology, and to some extent the courses in Greek literature. The collection owned by the University is supplemented by several hundred slides and many photographs belonging to the instructors in this department.

In the new Hall of Liberal Arts the departments of Greek and Latin have received ample accommodation. In addition to the regular recitation rooms, a well-lighted room is set apart as a working room for advanced students in the classics. For the present many books from the general library, which are not needed by beginning classes, are placed in this seminary library; and gradually the seminary room will be equipped with a special department library.

Graduates who offer Greek as their major are not required to take Latin as a minor, but they are strongly urged to do so. A working knowledge of Latin, as well as of French and Ger-

man, is, of course, required of candidates for the doctor's degree.

The courses in the Greek Language and Literature and Archæology are described above, pages 92–94.

LATIN LANGUAGE AND LITERATURE

PROFESSOR CURRIER; ASSISTANT PROFESSOR POTTER, ASSISTANT PROFESSOR CHASE (1901–2), MISS HUGHES, MISS EDDY, MISS PAINE

The minimum prerequisite for work leading to an advanced degree is the full preparatory work for the classical course and the three courses of the freshman and sophomore years: Livy; Cicero's *De Amicitia*, *De Senectute*, and *Tusculan Disputationi;* Terence's *Phormio;* Vergil's *Georgics*, *Book IV;* Pliny's *Letters;* Tacitus's *Germania* and *Agricola;* and Horace's *Odes*, *Satires*, and *Epistles*.

The courses in Latin Language and Literature are described above, pages 96–98.

The instructors of the Latin department meet once a week throughout the year to read in course and discuss informally the entire wprks of some author or period. Graduate students in Latin will be invited to participate in these meetings.

The department is well supplied with mounted photographs and lantern slides for the illustration of lectures, and specially of the work of courses 25, and 37.

SANSKRIT

ASSISTANT PROFESSOR POTTER

The courses in Sanskrit are intended to afford a general introduction to Indo-European Comparative Grammar and to lay the foundation for future reading in the literature and philosophy of the ancient Hindus.

1. Sanskirt Grammar and the reading of easy selections from the Nala.

First semester; Tu., Th.

2. Introduction to the Veda. Lectures on Hindu history and literature.

FRENCH LANGUAGE AND LITERATURE

PROFESSOR VAN STEENDEREN; MR. BUSH, MISS WILLIAMS, MISS HRUSKA

Aside from the general requirements for admission to the Graduate College, the candidate for an advanced degree, representing this department either in major or in minor subjects, must have completed courses 1, 2 and 3 as announced in the University Calendar for 1901–1902; that is, he is expected to know the essentials of French grammar, to be able to read modern French prose, and to translate English into French with fair ability.

Besides the completion of courses offered, the candidate must, if Romance is chosen as a major study, follow a course of original study, the subject of which is chosen under the advice of the professor in charge, and the results of which must be embodied in a thesis.

The courses in French Language and Literature are described above, pages 100–102.

GERMAN LANGUAGE AND LITERATURE

PROFESSOR WILSON; ASSISTANT PROFESSORS STURM AND EASTMAN

All courses in German are offered every year except as otherwise indicated. Courses with odd numbers are given in the first semester, those with even numbers in the second semester. Students are invited to consult with the instructors in arranging their work. Graduate students of German will find it to their special advantage to combine with their work some of the courses offered in the department of the Scandinavian language and literatures.

The German library is particularly rich in the history of Geman literature, the history of the German language, Goethe literature, Middle High German, Old High German, and posesses complete bound sets of the most important philological periodicals. It is conveniently arranged in the German Seminar room, No. 103 in the Hall of Liberal Arts, adjoining the other rooms of the department.

The courses in German Language and Literature are described above, pages 105–107.

SCANDINAVIAN LANGUAGES AND LITERATURES

ASSISTANT PROFESSOR FLOM

The graduate instruction offered in the department of Scandinavian Languages is intended in part to suit the needs of advanced students in other mordern languages, especially German and English, and in part to give to those who would devote themselves more particularly to Scandinavian literature ahd linguistics a thorough knowledge of Scandinavian both in the older and in the modern period. A knowledge of Old Norse is essential to a thorough understanding of the other Germanic languages and German philology in general. Old Danish and Old Swedish, though inferior from the standpoint of literary interest, are of the greatest importance philologically. Two courses will be offered in Old Norse (and Old Icelandic); the one elementary and philological, the other advanced and more literary in character. In the former the interests of the student of German or English philology will be kept constantly in view. This course is also intended to lay a foundation for further study in Scandinavian philology. The course in Old Danish and Old Swedish presupposes a knowledge of Old Norse and the principles of Germanic philology. Courses are also offered in the history of the Scandinavian languages and in Scandinavian influence on English. The latter should be of special interest to students of English philology. It is the purpose of this course to go, rather in detail, into the linguistic relations of English and Scandinavian. After introductory lectures on English dialects, in which special attention will be paid to Northern English, certain works will be assigned for investigation. The form and distribution of words will be studied, and their dialect provenience determined as nearly as may be.

A knowledge of Modern Norse, though not necessary, will be helpful in course 9, (*10*). Course 15, (*16*) presupposes course 9, (*10*). The student who would take up course 9 must have an elementary knowledge of Modern Danish and Swedish. Course 19 presupposes a good knowledge of Old Norse and of Old English phnoology.

Course 9 in old Norse is given every year. It will be the aim to alternate courses 11 and 15, the latter being given in 1901-1902. Course 17 or 19 will be given in 1903-1904.

The following Scandinavian philological and literary periodicals are accessible to students in the University library: *Arkiv för Nordisk Filologi* (complete file), *Aarböger for Nordisk Oldkyndighed og Historie* (since 1879), *Dania* (complete file), *Det Letterssedtske Tidsskrift, Nyt Tidskrift* (complete file), *Tilskueren*, besides a complete file of the Old Scandinavian texts published by the "Samfund til Udgivelse af Gammel Nordisk Literatur."

The courses in Scandinavian Philology are described above, pages 109–111.

ENGLISH

PROFESSOR ANSLEY; ASSISTANT PROFESSOR YOUNG, DR. HAGEN

Material for advanced study is found in the development and the present status of rhetorical theory; in the history of schools, movements, tendencies, and writers in our literature, with their relations to each other and to other literatures; in the theory of literary art, as an approach to the study of æsthetics; and in the structure of the language itself in the several stages of its evolution. An advanced degree in English should imply some knowledge of all these subjects, with specialization in one of them.

Students are assisted individually to determine the particular lines of investigation likely to prove most profitable. Courses of study other than those offered are given as occasion demands.

The courses in English are described above, pages 111–115.

PUBLIC SPEAKING

PROFESSOR GORDON; MISS EVERTS

The subject of public speaking deserves careful attention at the hands of graduate students. The relation between the history of a nation and the development of public speaking, the history of public speaking in a republic, and the influence

of vocal expression upon a nation's literature are some of the subjects that needs elucidation at the hands of cultured students.

The courses in Public Speaking are described above, pages 116–117.

HISTORY

PROFESSOR W. C. WILCOX; ASSISTANT PROFESSOR H. G. PLUM

Students who wish to do graduate work in History will be expected to have done more than the average amount of undergraduate work in the subject. Graduate work is not intended to fill up gaps left in student's undergraduate course. All who intend to specialize in History should emphasize this subject before taking the bachelor's degree. Before any one can be enrolled as a graduate student in this department the requisite amount of preliminary work must be completed, either before or after receiving the first degree. Those contemplating graduate work in History are urged to elect also courses in Sociology, Economics, and Politics.

The courses in History are described above, pages 118–120.

SOCIOLOGY

PROFESSOR LOOS; ASSISTANT PROFESSOR PATTERSON, MR. CADY

The courses in Sociology are described above, pages 120–121.

POLITICAL ECONOMY

PROFESSOR LOOS; ASSISTANT PROFESSOR PATTERSON, MR. THOMAS

Candidates for advanced degrees in the Graduate College who elect Economics as major or minor are requested to confer with the professor in charge for suitable grouping of the courses here offered.

The courses in Political Economy are described above, pages 123–125.

POLITICAL SCIENCE

PROFESSOR SHAMBAUGH; MR. THOMAS

Candidates for the advanced degree of Master of Arts or Doctor of Philosophy in any of the lines of study comprehended by the department of Political Science are offered the following regular courses of instruction. Additional courses in the general field of Politics will be outlined by the head of the department to meet the special demands of individual candidates.

The courses in Political Science are described above, pages 126–128.

PHILOSOPHY

PROFESSOR PATRICK; ASSISTANT PROFESSOR SEASHORE, DR. STUART, MISS WILLIAMS

This department offers opportunity for advanced study in the following subjects: Psychology, History of Philosophy, Logic and Metaphysics, Ethics, Æsthetics, and the History and Philosophy of Religion. Candidates for the degree of Master of Arts or Master of Science having the required preparation for advanced work may elect any one of these subjects for either a major or a minor course, subject to the rules for graduate students. Candidates for the degree of Doctor of Philosophy, while selecting one subject for special research will be expected to gain a comprehensive knowledge of all the subjects in this group. As examples of subjects for special research, or for *theses*, may be mentioned problems in experimental or physiological psychology, the methods and results of child study, epistemology, special periods and subjects in the history of philosophy, etc.

Candidates for advanced degrees in this department should have taken as undergraduate work in this institution, or in another of like rank, a general elementary course in psychology, a course in logic and a course in ethics. An introductory course in the history of philosophy is also very desirable for preparation. Graduate students not candidates for a degree may take any course for which they are prepared, upon the approval of the instructor.

The courses in Philosophy are described above, pages 129–132.

THE SCIENCE AND ART OF EDUCATION

PROFESSOR BOLTON; ASSISTANT PROFESSOR BROWN, MR. DORCAS; SUPT. MCCONNELL, Cedar Rapids, Lecturer

The courses in the Science and Art of Education are described above, pages 133–137.

ANIMAL MORPHOLOGY AND PHYSIOLOGY

PROFESSOR HOUSER; MR. LAMBERT, MR. STROMSTEN

The graduate courses offered by this department presuppose familiarity with both the general methods and the fundamental principles of animal biology. As a rule, the requisite preparation will involve one year of laboratory work. A knowledge of elementary chemistry, and the ability to read German and French are also prerequisites.

Applicants for a minor course who satisfy these requirements will be admitted at once to any graduate work for which they are prepared.

Those electing animal morphology as the major subject will be expected to meet the conditions named above, and in addition, to present evidence of having completed work equivalent to that of courses 7 and 8 outlined below. Where such preparation is lacking, a corresponding extension of the graduate course will be necessary.

The courses in Animal Morphology and Physiology are described above, pages 138–141.

HISTOLOGY AND EMBRYOLOGY

DR. WHITRIS

As a prerequisite to advanced work in this department the student will be required to possess a good working knowledge of both the methods and the subject matter of general histology and embryology. Two courses are offered as follows:

1. THE EYE—The histology of its tissues, considered in relation to both their phylogenetic and their ontogenetic development. The structure and development of the retina will be specially studied. Time to be arranged.

2. THE EAR—The investigation will proceed along the same lines as in the preceding course. Time to be arranged.

In either course the student will be assigned a private laboratory and offered such opportunities as the general laboratory and library afford. The department will supply the necessary tissues and reagents.

ZOOLOGY

PROFESSOR NUTTING; ASSISTANT PROFESSOR WICKHAM

Two years' work in natural science, one of which shall have been in zoology or animal morphology, will be required as a preliminary to admission to graduate courses with zoology as major.

One year's work in zoology, animal morphology, or botany will be required for admission to graduate courses with zoology as a minor.

The courses in Zoology are described above, pages 142–144.

BOTANY

PROFESSOR MACBRIDE; ASSISTANT PROFESSOR SHIMEK

General courses in elementary botany, including the courses in plant histology and physiology are required as preliminary to graduate work in this department. Graduates selecting botany as a minor may receive credit for courses (B) which follow. Those making botany the major subject may take courses (C), or their equivalent in work to be specially arranged.

The courses in Botany are described above, pages 145–146.

PATHOLOGY AND BACTERIOLOGY

DR. BIERRING

Candidates for advanced academic degrees may pursue research work in pathology and bacteriology in the laboratories of the College of Medicine. The number of students who can participate in the work, however, is limited by the accommodations of the special laboratory arranged for such work.

The following relations with respect to major and minor subjects are to be observed: When the major subject chosen is bacteriology the minors should include either chemistry, or botany, or both; while, if the major be either experimental or comparative pathology, the minors should comprise such subjects as morphology, physiology, and psychology. Work in this department may also be elected as a minor.

Special courses may be arranged to suit the requirements of individual students.

Throughout the year; hours to be arranged.

CHEMISTRY

PROFESSOR ANDREWS; DR. VON ENDE, MR. H. H. LOCKRIDGE, MISS A. ANKENEY, MR. ————.

These courses lead to the degrees of Master of Science, and Doctor of Philosophy, respectively.

Graduates of accepted colleges who have done the amount of work in chemistry ordinarily covered in three semesters, comprising general elementary chemistry with laboratory work, introductory qualitative analysis, and introductory quantitative analysis, may become candidates for the former of these degrees.

The requirements for admission to the courses leading to the doctor's degree demand three years' preparatory work in chemistry and comprise a good knowledge of the following branches: general chemistry, qualitative analysis, quantitative analysis, organic chemistry (including some experience in organic combustions and organic preparations) and outlines of chemical technology. A thorough course in physics is very desirable as a preparation for either of the advanced courses; and if, in any case, deficiencies exist in this respect they must be made up after entering, and a corresponding increase in the duration of the course is to be expected.

The courses in Chemistry are described above, pages 150–151.

PHYSIOLOGICAL CHEMISTRY

PROFESSOR ROCKWOOD

Suitable courses in physiological chemistry will be outlined to meet the requirements of graduate students desiring to pursue some phase of this subject, either as a major or as a minor in a course leading to an advanced degree. The applicant for such a course must satisfy the head of the department as to his knowledge of general chemistry, and as to his fitness for undertaking original investigations. The resources of the chemical laboratory of the College of Medicine will be made available to the student, and the work will be under the direct supervision of the professor in charge.

Time to be arranged.

PHYSICS

PROFESSOR VEBLEN; MR. LORENZ, MR. SIEG, MR. BOEHM

Those wishing to take physics as a minor should previously have pursued a course equivalent to the undergraduate course in general physics covering one year, and should also have a good working knowledge of algebra, geometry, trigonometry, and, if possible, of plane analytical geometry. For those taking physics as a major, a knowledge of differential and integral calculus is necessary, and, in some cases, differential equations will be needed.

A description of the physical laboratory and workshop will be found under the head of Material Equipment.

The courses in Physics are described above, pages 151–153.

MATHEMATICS

PROFESSOR WELD; ASSISTANT PROFESSOR SMITH, DR. WESTFALL, MR. BECK, MR. BURTON, MR. ————

It is to be noted that for each of the following courses in mathematics a knowledge of the elements of the differential and integral calculus is a prerequisite. The graduate student in other lines of work may, however, upon recommendation of

the professor in charge of his major subject, take as a part of the minor work the elementary courses in analytical geometry and calculus offered to undergraduates. (See course 5, Announcement of College of Liberal Arts for 1902-1903). The courses here outlined may, many of them, be taken by undergraduates specializing in mathematics; they cannot, in general, betaken *in absentia*.

All graduate students in mathematics are expected to take an active part in the mathematical seminary, and every candidate for an advanced degree will be required to submit a thesis, prepared under the direction of his instructors, representing original investigation in either pure or applied mathematics.

The courses in Mathematics are described above, pages 157–159.

Graduate courses in *Astronomy* cannot be offered at present. For elementary courses, see current announcement of the College of Liberal Arts.

THE SCHOOL OF POLITICAL
AND SOCIAL SCIENCE

FACULTY OF INSTRUCTION

GEORGE EDWIN MACLEAN, M. A., PH. D., LL. D.,
President.

ISAAC ALTHAUS LOOS, M. A., D. C. L.,
Professor of Sociology and Political Philosophy, and Director of the School of Political and Social Science.

WILLIAM CRAIG WILCOX, M. A.,
Professor of History.

BENJAMIN FRANKLIN SHAMBAUGH, M. A., PH. D.,
Professor of Political Science.

HARRY GRANT PLUM, M. A.,
Assistant Professor of History.

WILLIAM ROLLA PATTERSON, M. A., PH. D.,
Assistant Professor of Economics and Statistics.

SIMEON E. THOMAS, B. PH.,
Assistant Instructor in Political Science.

GEORGE LUTHER CADY, B. A.,
Fellow in Sociology.

J. E. CONNER, B. A.,
Fellow in Sociology and Political Philosophy.

FRANK HERMAN GARVER,
Fellow in History.

KIYOSHI KAWAKAMI,
Fellow in Political Science.

PURPOSE OF THE SCHOOL

The Iowa School of Political and Social Science was established by the Board of Regents in June, 1900. It provides courses in the following departments of instruction: History, Sociology, Economics, Commerce, Finance, Administration, Politics, and Jurisprudence. The aim of the School is to give a complete general view of all of the political and social sciences and to foster the further development of all of the branches thereof. Its more immediate and practical object is to prepare the students of the University for the intelligent exercises of the rights and duties of citizenship in a free commonwealth, and to fit them for the various branches of the public service and for the wider avenues of business. It aims furthermore to supplement by courses in public law and comparative jurisprudence the instruction in private municipal law given by the Faculty of Law, and to give to those who intend to make journalism their profession adequate training in historical, economic, and legal subjects. Finally it aims to educate teachers of the several branches of political and social science.

ADMISSION TO UNDERGRADUATE STUDY

Undergraduate study in the School of Political and Social Science is conditioned on admission to the College of Liberal Arts and subject to the regulations defining the courses of study leading to the bachelor's degree under the operation of the elective system, defined below.

THE ELECTIVE SYSTEM FOR UNDERGRADUATES

The scope of elective and required studies will be indicated by a brief statement of the requirements of the several undergraduate courses of study which lead to a baccalaureate degree.

The prescribed studies in the classical course are for the freshman year: Greek, five hours a week, throughout the year;

Latin, 3; English, 2; History, 2; and Mathematics, 4. And for the sophomore year: Greek; five hours; and English, 3. This leaves the student free to elect seven or eight hours a week throughout the sophomore year (fifteen or sixteen hours being regarded as full work), while during the junior and senior years all of his work is elective with only the condition that of the possible electives in the sophomore, junior and senior years, at least forty semester hours shall be taken in language and literature, political and social sciences, or philosophy and education. The requirements in the philosophical course are substantially the same; but German or French are to be substituted for the prescribed Greek. In the general scientific course the prescribed studies are similar to those of the philosophical course; but physics is required in place of Latin and History, and electives are limited mainly to courses in the material sciences, except in the senior year.

The student, therefore, who desires to do special work in the political and social sciences, will naturally elect the classical or the philosophical course, leading respectively to the degree of B. A. or B. Ph. If he wishes to specialize in the Iowa School of Political and Social Science he should in each semester of his sophomore year select at least two of the courses open to him in history, politics, and economics. The courses specifically recommended for this purpose are: Political Science 1 and 2, and Political Economy 1 and 2. He may thereafter pursue his chosen subjects throughout two years; these years he may, if he choose, devote entirely to his specialty.

GENERAL AND SPECIAL COURSES IN POLITICAL AND SOCIAL SCIENCE

To guide students who propose to elect all or a considerable portion of their undergraduate work in the School of Political and Social Science a general course in political and social science is announced below in which the specific requirements for the degree of B. A. and the degree of B. Ph. respectively are printed in heavy face type to distinguish these requirements from the other parts of the course which are in the nature of advice and suggestion. Following this general course of study a series of special courses are announced in Commerce, Administration, Statistics, Modern History, Jurisprudence, and Practical Philanthropy. These courses of study, both the

general and special, will be found below. Students may, in consultation with heads of departments, group their electives with special reference to some definite line of inquiry or in preparation for some definite pursuit.

COMBINED LIBERAL ARTS AND LAW COURSE

Students of the College of Liberal Arts who have completed their junior year and are entitled to senior standing at the beginning of the University year may be enrolled in the College of Law and receive credit for one year's time of law study while completing their senior year in the College of Liberal Arts, by complying with the following conditions: They must schedule for five hours a week in the College of Law in the subjects of the first year's course, and five hours a week in courses in the College of Liberal Arts approved by a joint committee of the College of Liberal Arts and the College of Law from the group of subjects embracing Political and Social Science including political and institutional history; the remaining five hours may be elected in any course the student desires, subject to the regulations of the College of Liberal Arts. Students in this combined course who earn credit for Elements of Jurisprudence, International Law, and Constitutional Law in the College of Liberal Arts are excused from Elementary Law, International Law, and Constitutional Law, except Constitutional Limitations, as given in the College of Law, and the grades made by students in such subjects in the College of Liberal Arts will be accepted as credits in the College of Law. Students of this course must, however, with the exception of the absolute equivalents above enumerated, pass examination in all the subjects of the law course prior to graduation. The five hours of law during the first year of the combined course will be given at 9 o'clock a. m., throughout the year.

Students in the College of Law not candidates for a Liberal Arts degree may take work in the College of Liberal Arts not to exceed five hours a week so long as they maintain a good standing in their law studies and do this elected work to the satisfaction of the professors in charge. The attention of students in the other professional colleges is directed to the opportunities which they have of supplementing their professional courses by elective work in history, economics, politics, and other subjects.

GENERAL COURSE IN POLITICAL AND SOCIAL SCIENCE

FRESHMAN YEAR

Greek 5 hours (if candidate for B. A.), or **German** 5, or **French** 5 (if candidate for B. Ph.); **Latin** 3; **English** 2; **History** 2; and **Mathematics** 4.

SOPHOMORE YEAR

Greek 5, or **German** 3, or **French** 3; **English** 3; Politics 3; Economics 3; History, Additional Language, Psychology or other science, 2 or 3.

JUNIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
English History	3	English History	3
Principles of American Government	3	Political Parties	3
Economics, or Economics and Sociology	4 or 5	Economics, or Economics and Sociology	4 or 5
Elective	5	Elective	5

SENIOR YEAR

American History	3	American History	3
Economics	3 or 2	Economics	3 or 2
Politics	3 or 2	Politics	3 or 2
Sociology	2 or 3	Sociology	2 or 3
Elective	4 or 5	Elective	4 or 5

SPECIAL COURSES IN POLITICAL AND SOCIAL SCIENCE

The freshman and sophomore years in preparation for the junior and senior years to be devoted to the special courses outlined in Political and Social Science should be practically the same for all the special courses, as the work above outlined for freshmen and sophomores in the general course of Political and Social Science. Therefore only the work for the juniors and seniors is here indicated. The special courses here outlined are based on the group principle of election; modifications may be made at the pleasure of the student to bring them

more specifically within the scope of his purposes. The special attention of those contemplating preparation for certain forms of the public service, for example, the consular service, is called to the importance of an adequate knowledge of modern languages. The five hours reserved for free election may be profitably devoted to linguistic or scientific studies, or to additional courses in the political and social sciences.

COURSE IN COMMERCE

JUNIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
Modern Industrialism	3	Corporation, Finance, and Accounting	3
Currency and Banking	3	Public Finance	3
Taxation	2	Transportation	2
Elementary Law	3	Commercial Law	3
Elective	4 or 5	Elective	4 or 5

SENIOR YEAR

The Theory and Technique of Statistics	3	Economic and Social Statistics	3
The Distributing of Wealth	2	Social Legislation	2
International Law	2	Commerce and Consular Service	2
Modern History	2 or 3	Colonial Government	2
Elective	6 or 5	Elective	6 or 5

COURSE IN ADMINISTRATION

JUNIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
Principles of American Government	3	Political Parties	3
Local Government	2	Colonial Government	2
Theory and Technique of Statistics	3	Public Finance	3
Modern History	2 or 3	Modern History	2 or 3
Elective	5 or 4	Elective	5 or 4

SENIOR YEAR

Elementary Law 3	Constitutional Law 3
Administrative Law 2	Administrative Law 2
Introduction to Sociology . 3	Social Amelioration 3
International Law and Diplomacy 2	Legal History 2
Elective. 5	Elective. 5

COURSE IN STATISTICS

JUNIOR YEAR

First Semester	*Second Semester*
HOURS	HOURS
Business Organization (Economics 5) 3	Corporation, Finance and Accounting 3
Theory and Technique of Statistics 3	Economic and Social Statistics 3
Analytics and Calculus . . 2	Analytics and Calculus . . 2
Political Economy. . . 3 or 2	Public Finance . . . . 3 or 2
Elective . . . . . 4 or 5	Elective. . . . . 4 or 5

SENIOR YEAR

Advanced Statistics, Seminar work 3	Advanced Statistics, Seminar work. 3
The Theory of Probabilities 2	The Theory of Probabilities 2
Administrative Law 2	Administrative Law 2
American History 3	American History 3
Elective. 5	Elective. 5

COURSE IN MODERN HISTORY

JUNIOR YEAR

First Semester	*Second Semester*
HOURS	HOURS
English History 3	English History. 3
History of France 2	History of Germany 2
Principles of American Government 3	Political Parties 3
Political Economy. . . 2 or 3	Public Finance . . . . 2 or 3
Elective. 5	Elective. 5

SENIOR YEAR

American History 3	American History 3
Europe in the XIX Century 2	England under the House of Hanover 2
Introduction to Sociology . 3	Social Amelioration 3
Local Government. 2	Colonial Government . . . 2
Elective. 5	Elective 5

COURSE IN PRACTICAL PHILANTHROPHY

JUNIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
General Sociology	3	General Sociology.	3
Psychology	3	Psychology	3
Modern History	3 or 2	Modern History. . . .	3 or 2
History of Education . . .	2	Ethics	2
Elective.	5	Elective	5

SENIOR YEAR

Criminology, Seminar work 3	Charities, Seminary work . 3
Distribution of Wealth. . . 2	Social Legislation 2
Theory and Technique of Statistics 3	Social Statistics 1
Elementary or Administrative Law . . . . . 3 or 2	Abnormal Psychology . . . 2
	Administrative Law 2
Elective. . . . . 4 or 5	Elective 5

COMBINED COLLEGIATE AND LAW COURSE

SENIOR YEAR IN LIBERAL ARTS AND FIRST YEAR IN LAW

Five hours of law throughout the year at 9 o'clock.

Five hours, certain courses in political and social science, including institutional and political history, approved by a joint standing committee. Students taking Politics 5 and 6, and Sociology 6, will be excused in the College of Law from courses in elementary law (eight weeks), constitutional law (winter six weeks), and international law (six weeks).

Five hours free electives in Liberal Arts.

PUBLICATIONS

The Faculty of Political and Social Science are the editors of a series of studies in Sociology, Economics, Politics, and History, of which the following have so far appeared: Vol. 1, Studies in the Politics of Aristotle, and the Republic of Plato, by ISAAC ALTHAUS LOOS. The University Press, 1899, pp. 296. Vol. 2, No. 1, The Early History of Banking in Iowa, by FRED D. MERRITT, M. A., Ph. D. The University Press, 1900, pp. 150.

THE POLITICAL SCIENCE CLUB

The Political Science Club is devoted to the cultivation and advancement of the political and social sciences. The club has held regular meetings since October, 1896. A formal organization was effected in January, 1897. The club now holds fortnightly sessions from October to May each year. At these sessions papers are read by members or by invited guests, presenting the results of original investigation in some subject in any one of the following group of sciences: History, economics, sociology, politics, law, education, and ethics. The membership of the club is limited to the faculties of instruction in the several departments interested.

THE SUMMER SESSION

JUNE 16—JULY 26, 1902

THE SUMMER SESSION

FACULTY AND INSTRUCTORS

GEORGE EDWIN MACLEAN, B. A., 1871; M. A., 1874, Williams; B. D., 1877, Yale; PH. D., 1883, Leipzig; LL. D., 1895, Williams.

President, 1899.* 603 College St. (Old Capitol)

LAUNCELOT WINCHESTER ANDREWS, B. PH., 1875, Yale; M. A., PH. D., 1882, Goettingen.

Professor of Chemistry, 1885.
229 S. Johnson St. (Chemical Laboratory)

CHARLES BUNDY WILSON, B. A., 1884; M. A., 1886, Cornell University.

Professor of German Language and Literature, and Secretary of the University Senate, 1888. 919 E. College St. (101 Liberal Arts)

ANDREW ANDERSON VEBLEN, B. A., 1877; M. A., 1880, Carleton College.

Professor of Physics, 1883. 707 N. Dubuque St. (Hall of Physics)

LAENAS GIFFORD WELD, B. S., 1883; M. A., 1885, Iowa.

Professor of Mathematics, and Dean of the Graduate College, 1886.
612 N. Dubuque St. (113 Liberal Arts)

ISAAC ALTHAUS LOOS, B. A., 1876; M. A., 1879, Otterbein; B. D., 1881, Yale; D. C. L., 1898, Penn Coll.

Professor of Sociology and Political Philosophy, and Director of the School of Political and Social Science, 1889.
22 E. Bloomington St. (205 Liberal Arts)

WILLIAM CRAIG WILCOX, B. A., 1888; M. A., 1891, University of Rochester.

Professor of History, and Secretary of the Faculty of the College of Liberal Arts, 1894. 629 N. Dubuque St. (222 Liberal Arts)

FREDERIC C. L. VAN STEENDEREN, M. A., 1893, Penn Coll.

Professor of French Language and Literature, 1893.
309 Church St. (120 Liberal Arts)

GILBERT LOGAN HOUSER, B. S., 1891; M. S., 1892, Iowa; PH. D., 1901, Johns Hopkins.

Professor of Animal Morphology and Physiology, 1892.
422 Iowa Ave. (Science Hall, first floor)

*Date following title indicates year of appointment to service in the University. The names are arranged in groups according to seniority of appointment to present rank.

BENJAMIN FRANKLIN SHAMBAUGH, B. PH., 1892; M. A., 1893, Iowa; PH. D., 1895, Pennsylvania.
Professor of Political Science, 1895.
219 N. Clinton St. (201 Liberal Arts)

CLARK FISHER ANSLEY, B. A., 1890, Nebraska.
Professor of English, 1899. 1041 Woodlawn. (227 Liberal Arts)

HENRY EVARTS GORDON, B. A., 1879; M. A., 1901, Amherst.
Professor of Public Speaking, 1900. 419 Iowa Ave. (312 Liberal Arts)

ARTHUR FAIRBANKS, B. A., 1886, Dartmouth; PH. D., 1890, Freiburg, i. B.
Professor of Greek Literature and Archæology, and Secretary of the Graduate Faculty, University Editor, 1900.
7 E. Bloomington St. (310 Liberal Arts)

FREDERICK ELMER BOLTON, B. S., 1893; M. S., 1896, Wisconsin; PH. D., 1898, Clark.
Professor of the Science and Art of Education, 1900.
1019 College St. (217 Liberal Arts)

BOHUMIL SHIMEK, C. E., 1883, Iowa.
Assistant Professor of Botany, and Curator of the Herbarium, 1895. In charge of Botany in the Summer Session.
529 Brown St. (Science Hall, second floor)

CARL EMIL SEASHORE, B. A., 1891, Gustavus Adolphus; PH. D., 1895, Yale.
Assistant Professor of Philosophy, 1897. In charge of Philosophy and Psychology in the Summer Session.
208 Fairchild St. (211 Liberal Arts)

GEORGE T. FLOM, B. L., 1893, Wisconsin; M. A., 1894, Vanderbilt; PH. D., 1899, Columbia.
Assistant Professor in charge of Scandinavian Languages and Literature, 1900. 124 Church St. (10 Liberal Arts)

GEORGE DEPUE HADZSITS, B. A., 1895; M. A., 1896, Michigan.
Acting Assistant Professor of Latin, 1902.

GEORGE CUTLER FRACKER, PH. B., 1894; M. A., 1900, Iowa.
Professor of Philosophy in Coe College. Assistant in Philosophy in the Summer Session. Cedar Rapids. (215 Liberal Arts)

LOUISE ELIZABETH HUGHES, B. PH., 1878; M. A., 1881; B. A., 1899, Iowa.
Instructor in Latin, 1896. 122 N. Capitol St. (112 Liberal Arts)

JOHN J. LAMBERT, B. Di., 1896; M. Di., 1897, Iowa State Normal; B. PH., 1899; M. S., 1901, Iowa.
Instructor in Animal Morphology and Physiology, 1898.
304 Davenport St. (Science Hall)

JOHN VAN ETTEN WESTFALL, B. S., 1895, Cornell University; PH. D., 1898, Leipzig.
Instructor in Mathematics, 1899. 127½ S. Dubuque St. (13 Liberal Arts)

CHARLES F. LORENZ, B. S., 1897; M. S., 1898, Iowa.
Instructor in Physics, 1900. 215 Ronalds St. (Hall of Physics)

MABEL CLARE WILLIAMS, B. PH., 1899, Iowa.
Assistant in Philosophy, 1899. 413 Iowa Avenue. (215 Liberal Arts)

CHARLES IRWIN LAMBERT, B. S., 1901, Iowa.
Assistant in Botany. 304 E. Davenport St. (Science Hall)

JOHN GABBERT BOWMAN, B. A., 1899, Iowa.
Assistant in English, 1901. 215 Ronalds St.

WILLIAM MILTON BARR, 1902.
Assistant in Chemistry. 413 Iowa Avenue. (Chemical Laboratory)

For the Faculty of the *Summer School for Library Training* see page 262 of this calendar.

Other instructors, demonstrators, assistants, and readers will be named later. Provision may also be made for additional subjects.

THE SUMMER SESSION COMMITTEE

The DEAN in residence, chairman; PROFESSOR BOLTON, secretary; PROFESSORS ANDREWS, ANSLEY, LOOS.

GENERAL INFORMATION

REGARDING

THE SUMMER SESSION

PURPOSE

The Summer Session of the University is the outgrowth of a desire upon the part of the Board of Regents to enlarge the capacity of the University for rendering service to the people of the State.

In maintaining this department of work the Board of Regents has in view three classes of students:

1. Superintendents, high school teachers, and teachers in the higher grammar grades of the schools of the State.
2. Undergraduate college and university students.
3. Graduate students and others who may wish to take up special research work.

The University is a part of the public school system of the State and it is believed that it can make itself useful to the other parts of the system, by opening its doors to the teachers of the various grades and departments of the public schools at a time when they are released from their regular work. It can in this way bring them into a vital connection with the work and spirit of higher learning, affording them an opportunity to add to their preparation for their work by taking advanced courses of instruction in the subjects which they teach, and also affording them an opportunity to devote a part of their vacation time to a study of the theoretical and practical problems of education.

The courses of instruction have been planned with special reference to the wants of those doing, or expecting to do, work in high schools. Due attention will therefore be given to the subjects of the high school curriculum, both in regard to subject matter and methods of teaching. Advanced courses in the subjects represented in the high school curriculum will be

offered, as it is believed that the high school teacher needs and desires to know much more of the subjects than he is actually required to teach.

Many teachers in the public schools desire to secure permanent and general licenses to teach in the public schools of the State, as these licenses are represented by the certificates and diplomas issued by the State Board of Educational Examiners. At the Summer Session the University will offer instruction in most of the branches in which teachers seeking these certificates and diplomas will be examined by the State Board, and special attention will be given to the wants of such teachers as desire to finish their preparation for the examination to be given by the State Board. While the primary purpose of the Summer Session is, as above indicated, to render a valuable service to the teachers of the State, it is distinctly borne in mind that many University students, especially those who have been unable to carry on consecutive work in the University, may find an opportunity to supplement the work of the regular collegiate year in such a way as to enable them to make substantial progress in their University courses.

It is also thought that some persons intending to enter the University may be able to take advantage of the Summer Session to complete the requirements for admission to the regular University courses.

The various departments of the University in which courses are offered will be open to advanced and graduate students who may wish to employ a part of their vacation time in special research work, and it will be the aim of the faculty to provide especially for the wants of this class of students.

ADMISSION

All students seeking credit in the University will be expected to meet the requirements for admission as stated in the Annual Calendar.

All other applicants for admission to the Summer Session will be permitted to schedule for such work as, in the judgment of the professors concerned, they may be able to pursue to advantage.

UNIVERSITY CREDIT

1. Credit will be allowed for courses in any subject of collegiate grade amounting to not less than two term hours, and

for shorter courses when, in the judgment of the faculty, the work is such as to form a part of other work for which credit is allowed.

2. Credit will be allowed in any specific subject upon the approval of the professor in charge of that subject in the University.

3. Credit cannot be allowed to any student whose schedule shall exceed twenty hours per week.

4. Students receiving credits must have complied with the requirements for admission to the University.

5. Credit will not be allowed for duplicated work.

Ample opportunity will be afforded students to schedule for work leading either to university or to preparatory credit. The maximum amount of credit which may be earned in the Summer Session is ten term hours, or six and two thirds semester hours.

GENERAL LECTURES AND ROUND TABLE MEETINGS

Saturday morning of each week will be devoted to general lectures and to the weekly chapel exercise.

A definite programme of lectures to be given on Saturday mornings will be announced at the opening of the session.

Round table meetings for the discussion of various topics of interest to educators will be organized by those in attendance upon the session, as circumstances may suggest.

There will be opportunities to listen to addresses by eminent educators from other institutions.

EXAMINATION

In the special interest of those students who may wish to secure state certificates or state diplomas, the State Board of Educational Examiners will hold an examination at the University on July 24–25, 1902.

EXPENSES

The tuition for the Summer Session is five dollars, which fee covers all dues to the University.

There are no dormitories and no commons connected with the University. Clubs may be formed, in which the cost of day board is from $2.00 to $2.50 per week. Room rent varies

from 50 cents to $1.50 per week for each student. Boarding and lodging in private houses can be obtained from $3 to $5 per week.

Inquiries regarding rooms and board may be made of the Secretary of the Young Men's Christian Association.

REGISTRATION

Students upon arriving at the University, should present themselves at the office of the Dean of the Summer Session, room 113, Hall of Liberal Arts, for registration and assignment of classes.

Office hours of the Dean of the Summer Session, 2 to 3 P. M.

Office hours of the President of the University, 11 A. M. to 12:15 P. M.

Any further information desired may be obtained by addressing the President of the University, Iowa City, Ia.

OUTLINE OF THE PLAN OF INSTRUCTION

The courses offered in the several departments represented in the Summer Session are here outlined. Those desiring more detailed information should communicate directly with the professor interested.

GREEK

PROFESSOR FAIRBANKS; DR. HADZSITS

i. BEGINNING GREEK—White's *First Greek Book*, Goodwin's *Greek Grammar*. Ten periods a week. Professor FAIRBANKS.

ii. XENOPHON'S *Œconomicus*—A course for students who have done either one or two years' work in Greek. Three hours. Dr. HADZSITS.

iii. ILLUSTRATED LECTURES ON GREEK MYTHOLOGY, and on Greek life. One hour, no credit. Professor FAIRBANKS.

iv. DEMOSTHENES—A course for graduate students. Several of the private orations of Demosthenes will be read; lectures on legal procedure at Athens. Professor FAIRBANKS.

LATIN

PROFESSOR FAIRBANKS; DR. HADZSITS, MISS HUGHES

i. CÆSAR, OR CICERO'S ORATIONS—Preparatory credit in Cæsar, or college credit in Cicero, according to amount of work done. Three hours a week. Miss HUGHES.

ii. COMPOSITION AND SYNTAX—Five hours a week. Miss HUGHES.

iii. One or two plays of PLAUTUS or of TERENCE—A reading course open to students who have completed their preparatory course in Latin. Five hours a week. Dr. HADZSITS.

iv. OVID—Rapid reading of selections from the *Metamorphoses*, with special reference to Ovid's use of Greek and Roman mythology. Five hours a week. Professor FAIRBANKS.

v. LUCRETIUS—A course for graduate students. Selections will be read with reference to Lucretius's philosophic doctrines; informal lectures on the history of ancient thought. Four hours a week. Dr. HADZSITS.

FRENCH LANGUAGE AND LITERATURE

PROFESSOR VAN STEENDEREN

i. THIRD TERM COURSE—Intended primarily for students who began French in the winter term of 1902. The course will, however, be comprehensive enough to afford a good opportunity to teachers and others who wish to study or review the principles of French Grammar and to gain facility in reading French for purposes of research in other branches. Systematic study of pronunciation and drill in French composition are features of the course. Grandgent's *Essentials of French Grammar*, Erckmann-Chatrian's *Madame Thérèse*, and Octave Feuillet's *Le Roman d'un jeune homme pauvre*. Daily, two hours a day. Credit, five term hours.

ii. FRENCH CONVERSATION AND COMPOSITION—Open to students who have studied French for one year. Thorough drill in expressions and idioms used in daily life, in business and in travel. Letter writing. Reading of French newspapers. Lectures on French life and institutions. Storr's *Exercises in French Syntax*, and *Méthode Berlitz, 2me Année*. Three hours a week. Credit, one and a half term hours. This course should be taken with course iii.

iii. CONTEMPORARY FRENCH NOVEL—Open to students who have studied French one year. Lectures on the literary movements in the nineteenth century. Anatole France's *Le Crime de Sylvestre Bonnard*. The course is conducted mainly in French and should be taken with course ii. Two hours a week. Credit, one term hour.

GERMAN LANGUAGE AND LITERATURE

PROFESSOR WILSON; ASSISTANT PROFESSOR FLOM

i. ELEMENTARY COURSE—A third term course, intended primarily for students who began the study of German in the

University in January, 1902. Those who successfully complete this course will be able to enter the regular second year class in the fall. It is open also, but without credit, to others who have already finished the first year course and may wish to enjoy the advantages of a review. Credit, five term hours. Two hours a day, five days a week. Assistant Professor FLOM.

ii. CONFERENCES ON METHODS—Discussion of the methods of presenting the most essential parts of German grammar, and examination of the Report of the Committee of Twelve of the Modern Language Association of America. Intended primarily for teachers, and not open to students who have not studied German. No university credit. Tuesdays and Thursdays. Professor WILSON.

iii. GERMAN STORY — Riehl's *Burg Neideck*. Open to students who have studied German at least one year. Should be taken in connection with course iv. Conducted in German and English. Credit, one and a half term hours. Mondays, Wednesdays and Fridays. Professor WILSON.

iv. GERMAN COMPOSITION—The purpose of this course is to give such persons as already have an acquaintance with German some practice in composition and conversation. Should be taken in connection with course iii. Conducted in German. Credit, one term hour. Tuesdays and Thursdays. Professor WILSON.

v. SEMINAR—For graduate and advanced students. The instruction will be personal, and students will be allowed some latitude in the choice of subjects. The work will be carried on in the German library, where students will have direct access to the sources. The amount of credit will be determined for each case separately. Candidates for this course should communicate with the instructor as soon as possible. Five times a week. Professor WILSON.

SCANDINAVIAN

DR. FLOM

i. OLD ICELANDIC PROSE—The *Laxdælasaga*, in the edition of Kålund, will be read in part, after which will be read the *Gylfaginning* of the Prose Edda. For the latter Sijmons edition will be used. Four hours a week. Credit, two hours.

ii. GENERAL SURVEY OF NORWEGIAN LITERATURE IN THE XIXTH CENTURY—Lectures with required parallel reading of

representative works. Björnson's *Synnöve Solbakken* and Ibsen's *Brand* will be made the subject of special study in class as illustrating literary tendencies in Norway since 1840. In this course some attention will be paid to the language movement in Norway since 1814, in connection with which will be discussed: Aasen's influence, the Landsmaal, Ibsen's language, Jonas Lie. Prerequisite, a good reading knowledge of Norse. Four hours a week. Credit, two hours.

Hours for above courses will be arranged to suit those concerned.

ENGLISH

Professor Ansley

i. The Drama—A study of the drama as a literary form, and of principles of literary art exemplified in the drama. As concrete illustration, Shakespeare's *Macbeth* will be considered in detail. Credit, two and a half term hours. Five hours a week.

ii. The Novel—Studies in the structure and the significance of prose fiction. Illustrations will be selected in part from *The Last of the Mohicans*, *Silas Marner*, *The Vicar of Wakefield*, and *Ivanhoe*. Credit, two and a half term hours. Five hours a week.

For graduate students, work will be suggested in private conferences.

PUBLIC SPEAKING

Professor Gordon

i. Expression in Voice and Action—This course is general and seeks to prepare the student in voice and body for the work of public speaking in all its forms. Each student is examined with reference to his individual needs, and an effort is made to adapt the work to such needs. Five hours.

ii. Public Address—The preparation and presentation of an argument as to its preliminary reading, structure, evidence, briefing, style, and delivery, are carefully developed. This course must be preceded or accompanied by course i. Five hours.

iii. Extempore Speaking—The aim of this course is to develop some form of oratory in a practical way. It must be preceded or accompanied by course i. Five hours.

HISTORY

PROFESSOR WILCOX

i. THE HISTORY OF THE UNITED STATES FROM THE TRIUMPH OF ANDREW JACKSON TO THE PERIOD OF RECONSTRUCTION—This course comprises a discussion, in the form of lectures, of the economic, political, and physical factors which made up our national life during a period of forty years. An attempt is made to present the slavery-issue in a true historical perspective. Special emphasis is laid upon the personality of political leaders, the transformation of political parties, and the expansion of material well-being. Attention is directed to the significance of the presidential elections and the outworking of the principles of our constitutional law through the machinery of party government. Lectures, five hours a week.

ii. THE NAPOLEONIC ERA IN EUROPE, 1799–1815 — The object of this course is two-fold. In the first place, it aims to present the work of Napoleon inside France which has regenerated French public life throughout the last century. The reconciliation with the church, the reorganization of governmental finance, the codification of the law, the creation of a nobility by service, the establishment of popular education, the rehabilitation of justice, and the great work of internal improvements are selected as the true criteria of the beneficent side of Napoleon's career as ruler of France.

In the second place, this course aims to present the history of France under Napoleon as the determining factor in the general political situation in Europe. The history of contemporary Europe is presented as furnishing the only trustworthy means of obtaining a correct estimate of Napoleon's place in the history of Europe. The aim is to consider the history of France as a part of the history of the Continent. Lectures, five hours a week.

iii. Five Saturday Morning Lectures.

(1) THE GREAT REVIVAL IN EUROPE.

(2) THE ERA OF THE PROTESTANT REVOLUTION.

(3) THE RISE AND POWER OF SPAIN.

(4) THE THIRTY YEARS WAR.

(5) THE SUPREMACY OF FRANCE.

These lectures are open to everybody without scheduling for them. They will be given in the historical lecture room

each Saturday morning. A separate printed syllabus will be furnished for each lecture. The aim of the course is to present in outline form the influence of the successive forces which dominated European life during the fifteenth, sixteenth and seventeenth centuries.

iv. GRADUATE WORK — This work will be conducted in private conferences with the candidates for advanced degrees. Such candidates are urged to be present during the Summer Session as special opportunity will then be given for individual research work in History.

SOCIOLOGY

PROFESSOR LOOS

i. SOCIAL AMELIORATION—Lectures on police, sanitation, charities, and correction. For graduates and undergraduates. Two hours. Tu., Th., at 10:00 a. m.

ii. The Industrial Revolution in its Social Aspects. A study in applied sociology. Special attention will be given to modern labor legislation, trade unionism, and the trust problem. For graduates and undergraduates. Three hours; two hours of lectures and recitations, a third hour for conference. Mon., Wed., Fri., at 10:00 a. m.

POLITICAL ECONOMY

PROFESSOR LOOS

i. COMMERCE AND COMMERCIAL GEOGRAPHY—An introduction to the study of commerce with some lectures on commercial geography. This course will take the place of the ordinary course in elementary economics for which it will serve as a substitute. It is designed for teachers of political economy in the high schools and for beginners in economic science; students who have previously taken elementary economics will, however, find this a profitable course. Three hours, of which the first two of each week will be devoted to lectures and recitations; the third hour will be devoted to conferences on methods of teaching political economy in the high school or other preparatory school, and problems in the principles of economic science.

Mon., Wed., Fri., at 8:00 a. m.

ii. THE DISTRIBUTION OF WEALTH — with a preliminary survey of modern theories of value. Open only to students who have previously taken the elementary economics or its equivalent in commerce. Three hours, of which the first two of each week will be devoted to lectures and recitations, the third hour to conference. For graduates and undergraduates.

Tu., Th , Sat., at 8:00 a. m.

POLITICAL SCIENCE

PROFESSOR SHAMBAUGH

The Department of Political Science offers two courses for which any student regularly admitted to the Summer Session may schedule.

i. IOWA HISTORY AND POLITICS — Lectures on the political and constitutional history of Iowa. An attempt will be made to make this course especially helpful to those who are interested in the teaching of Civics in the public schools. Some attention will be given to the methods of teaching Civics.

Three hours; Mon., Wed., Fri., at 11:00 a. m.

ii. MODERN EUROPEAN GOVERNMENTS — A comparative study of the leading governments of modern Europe including the Government of England, the Government of Switzerland, the Government of France, the Government of Germany, and the Government of Belgium.

Two hours; Tu., Th., at 11:00 a. m.

PHILOSOPHY AND PSYCHOLOGY

ASSISTANT PROFESSOR SEASHORE; MR. FRACKER, MISS WILLIAMS

i. INTRODUCTION TO PSYCHOLOGY—A brief survey of the entire field of psychology, especially adapted for teachers who can take only a short course. The lectures will be accompanied by demonstration with apparatus and other illustrative material from the psychological laboratory, and by supplementary reading. This course serves as an introduction to all other courses in the department of Philosophy, but is also the proper sequel to course I, as given in the summer session of 1901. Five hours. Dr. SEASHORE.

ii. INTRODUCTION TO PHILOSOPHY—An elementary study of the problems of philosophy. 1. Definition of philosophy and of philosophical terms. 2. Divisions of philosophy and its relation to religion and to the sciences. 3. Presentation of the problems in the three great fields of philosophy with illustrative references to historical systems,—(a) Problems of metaphysics: atomistic and teleological-theistic theories, evolution, causality and finality, materialism, mind and body, parallelism, etc. (b) Problems of epistemology: knowledge, its origin, nature and relation to reality; space, time, etc. (c) Problems of ethics: morality, its origin, nature and object. Lectures with assigned readings in the history of philosophy and in Külpe's and Paulsen's introductions. Mr. FRACKER. Five hours.

iii. LABORATORY COURSE ON PSYCHOLOGY—A series of selected experiments so arranged as to familiarize the student with the method, the apparatus, and the results of typical experiments in each of the approved lines of psychological studies, and especially to furnish training in accurate observation and interpretation of mental processes. May be taken with or in sequence to course i. Three laboratory periods and two lectures a week. Dr. SEASHORE and Miss WILLIAMS.

iv. RESEARCH IN PSYCHOLOGY—Original investigation of special problems in psychology. Advanced individual work in the laboratory for graduate students. In this course special attention may be given to preparation for the experimental study of school children. Dr. SEASHORE.

THE SCIENCE AND ART OF EDUCATION

PROFESSOR BOLTON

i. THE HIGH SCHOOL—Courses of study, educational values, sequence of subjects, relation of elementary, secondary, and higher education; government and training of adolescents; the high school as a preparatory school or as an end in itself; methodology and technique of high school subjects. Five hours a week. Credit, two and a half term hours.

ii. CHILD STUDY AND ELEMENTARY EDUCATION—The scope, methods, and literature of child study; its relation to elementary education, and its value and necessity for parents and teachers. Such topics as imitation, children's play, im-

agination, the beginning of child language, elementary ideas of law and order, beginnings of moral notions, fears, use of stories, nature study, etc., will be considered. Lectures and readings. Five hours a week. Credit, two and a half term hours.

iii. PROBLEMS IN ADVANCED EDUCATIONAL PSYCHOLOGY — Designed for those who have taken at least elementary psychology, or elementary pedagogy, or who have had teaching experience. Superintendents, principals, and teachers desiring to consider carefully from the most modern standpoints the fundamental problems of education will find this course adapted to their needs. Lectures and assigned readings. Five hours a week. Credit, two and a half term hours.

iv. It is probable that a round table will be organized for the discussion of selected current topics in education. Time to be announced later.

v. Advanced students pursuing research and special investigations will be afforded ample opportunities and will receive personal direction in their work.

ANIMAL MORPHOLOGY AND PHYSIOLOGY

PROFESSOR HOUSER; MR. J. J. LAMBERT

i. ANIMAL BIOLOGY—This course is designed to acquaint teachers of natural science with the chief principles of animal biology, and to give practice in the more general methods employed. Laboratory studies are made, both anatomical and microscopical, of the frog, developing chick, unicellular organisms, hydra, earthworm, crayfish, and fresh-water mussel. Lectures are given on the elements of comparative anatomy and embryology, environment, heredity, variation, natural selection, and animal coloration. Applicants for this work will bring their dissecting instruments. Five times a week, 1:30 to 3:30. Credit, two and a half term hours.

ii. ANIMAL PHYSIOLOGY—A course intended for teachers of physiology. It is the aim thoroughly to ground the student in this branch of biological science, not simply to give him instruction which he may, in turn, impart to others. Laboratory work involving: (a) the dissection of the cat, sheep's heart, brain, and eye; (b) microscopical studies of the tissues and organs of mammals; (c) demonstrations and experiments. Lectures presenting the essential principles of animal physi-

ology. Applicants for the course will bring their dissecting instruments. Five times a week, 8:00 to 10:00. Credit, two and a half term hours.

iii. GRADUATE COURSES—The facilities of the laboratory and departmental library are open to such graduate students as may be fitted to make use of the opportunities afforded. Five times a week, periods to be arranged.

BOTANY

ASSISTANT PROFESSOR SHIMEK; MR. C. I. LAMBERT

The following courses are offered:

i. The study of types illustrating the principal groups of plants, both flowering and cryptogamous, which are represented in the state. Each type will be studied with reference to structure, reproduction, distribution, habit, etc., and special attention will be given to its relationships. The course is intended to give a comprehensive view of the plant world, and will be especially useful to teachers of elementary botany. Four hours a week, supplemented by evening lectures or an equivalent, requiring an additional hour each week. Credit, two and a half term hours.

ii. A course in vegetable morphology and histology. The morphology of the vegetable cell will be studied, and its modifications in the various tissues and structures of the higher plants will be considered and illustrated in the laboratory. In connection with this course students will be taught the more common methods of preparing, sectioning, staining, and mounting the various objects used in illustration. Five hours a week. Credit, two and a half term hours.

iii. One additional advanced course, either in histology and embryology or in experimental physiology, according to the requirements of those who enter it, will be offered to students who have had the necessary previous training for such work. Five hours a week. Credit, two and a half term hours.

The department reference library and the extensive herbarium will be accessible to students pursuing botanical work.

CHEMISTRY

PROFESSOR ANDREWS; MR. BARR

i. QUALITATIVE ANALYSIS — Laboratory course. Mon., Wed., Fri., 1:30 to 5:00 p. m. A knowledge of the elements of chemistry is presupposed in those who take this course.

ii. QUANTITATIVE ANALYSIS—Two lectures a week with the same hours for laboratory as in course i. A knowledge of the elements of general chemistry and of qualitative analysis is required.

iii. ORGANIC PREPARATIONS — Lectures on the elements of organic chemistry and a course of laboratory exercises in the preparation of typical organic compounds and in organic synthesis. Five exercises a week, the laboratory hours being the same as for course i.

PHYSICS

PROFESSOR VEBLEN; MR. LORENZ

i. ACOUSTICS AND OPTICS—This course will consist of lectures and recitations on the principal facts and principles of sound and light. The subjects treated will be illustrated by lecture experiments and demonstrations where such aids will make the matter clearer. Ample references for reading will be given from time to time. Candidates for this course should have a good working knowledge of algebra and geometry and some acquaintance with trigonometry. Five hours a week. Credit, two and a half term hours.

ii. LABORATORY WORK—The work in the laboratory being entirely individual, students of various degrees of advancement can be accommodated at the same time. It is required, for admission to laboratory courses, that the candidate should have at least a good elementary preparation in physics. Students who have had work equivalent to the first year's course in physics in the University, may obtain university credit for laboratory work pursued for not less than six hours a week during the session. For teachers the work in the laboratory can be arranged to meet individual needs, such as gaining familiarity with particular pieces of apparatus, or carrying out special lines of experimentation.

The instruction in the laboratory will be given from eight to twelve o'clock each morning, except Saturday; and it is

expected that each student will work during two consecutive hours upon each exercise. Courses of two or more exercises a week may be arranged. Amount of credit to be determined at the end of the term.

iii. GRADUATE WORK — The laboratory and the special library of the department will be open to graduate students under the usual conditions. They will enjoy the same facilities and advantages as are offered at other times of the year to those pursuing special or advanced work.

MATHEMATICS AND ASTRONOMY

PROFESSOR WELD; DR. WESTFALL

The following courses in mathematics are arranged with reference to the needs of teachers preparing to take examinations for state certificates or diplomas and of students seeking entrance to the University or desiring to earn credit in elementary mathematics. Each course will conclude with a written examination.

i. ALGEBRA—This will be essentially a teachers' course, both the subject matter and methods of presentation being given careful attention. The theories of the minus sign and of the exponent will be considered at the outset. Drill work in the fundamental operations will be given, especially in factoring. The simple equation of the first degree will next be studied and geometrically interpreted, after which the quadratic equation will be treated in a similar manner. Attention will also be given to systems of simultaneous equations. The course will include a study of imaginary expressions and their interpretation. Three hours a week. Professor WELD.

ii. PLANE GEOMETRY—This course will be presented with due reference to methods of instruction. The so-called *heuristic*, laboratory, and other methods of teaching geometry will be discussed and illustrated. At the same time the work will be so conducted as to enable the student to obtain a comprehensive view of the subject. Especial notice will be taken of needs of those intending to pass the examinations for state diplomas or for admission to the University. Two hours a week. Dr. WESTFALL.

iii. SOLID GEOMETRY—Those deficient in solid geometry

and who intend to enter the University in the near future will be given an opportunity to make up this requirement for admission to full freshman standing. Two hours a week. Dr. WESTFALL.

iv. TRIGONOMETRY—This course will be limited to plane trigonometry and can be taken only by those having a good knowledge of geometry and algebra. The subject will be studied with special reference to its practical applications to surveying, navigation, mensuration, etc. Credit, one semester hour. Two hours a week, with field work. Professor WELD.

v. HIGHER MATHEMATICS — A course in some branch of higher mathematics will be given, provided a sufficient number of properly qualified students present themselves for such work.

In any case the instructors will give liberally of their time and services to those wishing direction in any of the lines of study coming within the scope of the department. Special appointments will be made with individuals.

vi. ASTRONOMY — If desired, a series of lectures will be given on some of the principal topics of Astronomy. These will be supplemented by the exhibition of the series of lantern slides belonging to the department and by visits to the observatory, where many of the more interesting celestial objects may be located and studied with the aid of the telescope. Saturdays. Professor WELD.

THE SUMMER SCHOOL

FOR

LIBRARY TRAINING

A DEPARTMENT OF THE SUMMER SESSION, UNDER THE AUSPICES OF THE

IOWA LIBRARY COMMISSION

MEMBERS OF THE COMMISSION *Ex-Officiis*

JOHNSON BRIGHAM, *State Librarian*,
President.

RICHARD C. BARRETT, *State Superintendent of Public Instruction.*

GEORGE E. MACLEAN, *President of the State University.*

MEMBERS OF THE COMMISSION BY APPOINTMENT

MRS. HARRIET C. TOWNER, Corning.
MRS. JESSIE WAITE DAVIDSON, Burlington.
MRS. LIZZIE R. NORRIS, Grinnell.
CAPT. W. H. JOHNSTON, Ft. Dodge.

ALICE S. TYLER,
Secretary of the Commission.

SUMMER LIBRARY SCHOOL

FACULTY

GEORGE E. MACLEAN, Ph. D., LL. D.,
President and Lecturer on Library Subjects.

ALICE S. TYLER, *Illinois State Library School*,
Director and Instructor in General Library Subjects.

ESTHER CRAWFORD, B. L., Iowa State College, *N. Y. State Library School.*
Classification and Cataloging.

HARRIET A. WOOD, B. A., Vassar, *N. Y. State Library School.*
Reference Work, Accession and Shelf List.

ANNIE CARROLL MOORE, *Children's Librarian, Pratt Institute Library, Brooklyn, N. Y.*
Library Work for Children and Children's Literature.

MARGARET BUDINGTON, B. A., Vassar, *Illinois State Library School.*
Reviser.

LECTURERS

JOHNSON BRIGHAM, State Librarian, Des Moines.
C. E. SEASHORE, Assistant Professor of Philosophy, State University.
C. F. ANSLEY, Professor of English, State University.
MRS. BERTHA G. RIDGWAY, Librarian, State University.
MRS. HARRIET C. TOWNER, Library Commissioner, Corning.
MARY EILEEN AHERN, Editor *Public Libraries*, Chicago.
EDITH TOBITT, Librarian, Public Library, Omaha, Neb.
HARRIET L. MCCRORY, Librarian, Public Library, Cedar Rapids.
And others.

IOWA SUMMER LIBRARY SCHOOL

The Iowa Library Commission takes pleasure in announcing that the second annual session of the Summer School for Library Training will be held at the State University, Iowa City, Iowa, as a department of the Summer Session of the State University of Iowa, June 16 to July 26, 1902.

OBJECT

This course is intended for the librarians of the smaller libraries, assistants in the larger libraries, and for those definitely appointed to library positions, who wish to prepare for their work. It is in no sense offered as a substitute for the full course of one of the regular library schools, but is given for those who feel their lack of knowledge of modern library methods and have not the time or means to attend a library school. By securing a leave of absence for six weeks they can in a brief, systematic course, such as is planned, gain a broader view of the work as a whole. The aim will be to give as thorough a course of technical library training as can be compressed into six weeks of close work.

SUBJECTS

In all cases where the subject admits, instruction will be accompanied by practice work which will be carefully revised and criticised.

The following subjects will be included in the lectures given during the course:

Note-taking,
Library handwriting,
Alphabeting,
Statistics,
Order department,
Book buying,

Trade bibliography,
Mechanical preparation of books,
Accessioning,
Shelf listing,
Classification,
Author numbers,
Cataloging,
Printed finding lists,
Serials,
Contact with the public,
Loan systems,
Library work with children,
Reference work,
Reading lists,
Interior arrangement of a library,
Libraries and schools,
Library extension,
Library commissions and traveling libraries,
Library administration,
Binding and repair of books,
Library ideals,
Literary architecture.

INSTRUCTORS

The instruction in classification and cataloging will be given by Miss Esther Crawford, of the Western Reserve University Library, Cleveland, O., who is so well and favorably known to Iowa librarians. Miss Crawford is recognized as an authority in her subjects and her instruction is given from the fulness of wide experience and close study.

Library work with children is the new feature of this session and the instruction will be given by Miss Annie Carroll Moore, Head of the Children's Department, Pratt Institute Library, Brooklyn, N. Y. Miss Moore has been intimately identified with the movement in recent years to give this work the prominence it deserves, and now has, in the libraries of the United States. Her children's department is one of the chief features of the Pratt Institute Library School.

Miss Harriet A. Wood, Head Cataloger in the University Library at Iowa City, will give the instruction in reference work. She brings to this subject the requisite training and an experi-

ence in reference work in the Public Library, Cincinnati, O., which will make this course practical and helpful.

Miss Wood will also give instruction in accession work, shelf listing, and minor subjects.

A trained assistant will revise all technical work so that students may not repeat their mistakes.

General subjects will be treated by Miss Tyler, the Secretary of the Commission, and those phases of library work especially related to Iowa conditions will have consideration

LECTURES

Lectures will be given during the course by members of the Faculty of the State University and members of the Library Commission. Dr. George E. MacLean, President of the State University and a member of the Library Commission, Johnson Brigham, State Librarian and President of the Library Commission, and Mrs. H. C. Towner, of the Library Commission, are expected to lecture on some of the larger phases of library work.

C. F. Analey, Professor of English in the University, and Dr. Seashore, Assistant Professor of Philosophy at the University, will lecture on some of the subjects in their departments which are closely related to library work.

Mrs. Bertha G. Ridgway, Librarian of the State University, will lecture on government publications, and the handling of the same. Other prominent librarians will be heard during the course, on themes of especial interest. Several lectures of a general character on library subjects will be given by members of the Faculty of the School of Library Training, to which all members of the Summer Session will be admitted.

The library of the University, comprising about 60,000 volumes, and the Public Library of Iowa City, comprising about 4,000 volumes, will be at the service of the student, affording ample practice work.

COURSES

Subjects of technical interest to library workers, affecting the orderly arrangement and conduct of the library will be given due prominence. The essential records—accession and shelf—will be explained with practice work sufficient to make

them clear. Simple and practical loan systems will also be discussed.

CLASSIFICATION AND CATALOGING

The course in Classification and Cataloging will deal only with the fundamentals of each subject and on the supposition that the student has had little if any previous instruction.

Classification will be based upon the Decimal system (abridged edition) and will consist of 15 lessons.

The Cataloging course will extend through two summer sessions instead of one, thus reducing the "cramming" process and its consequent evils. The first year's course of 26 lessons will cover the elementary principles of author and title entry and will extend through the first four and a half weeks of the session. The second year's course of 18 lessons will cover the elements of subject and analytic cataloging and will extend through the last three weeks of the session.

The second year's course will be open to former students of the school whose work has commended itself to the instructor and director; also to other applicants who give satisfactory evidence of ability to catalog by author and title. No student may take both courses in the same session, although former students wishing to review may attend lectures with the first year class.

No student will be admitted to either course who is not present at the first lecture.

REFERENCE WORK

Reference work will receive the attention which its importance warrants; and helpful methods for aiding students in their researches, the best books on selected subjects, etc., will be discussed.

The course will consist of 12 lectures, and problems likely to arise in actual work will be assigned. Students will be supplied with *Selected reference books* (N. Y. State Library School Bulletin 4); especial attention will be called to the excellent list of *Books suggested for school reference libraries* issued by the Buffalo Public Library.

SPECIAL COURSE IN LIBRARY WORK FOR CHILDREN

During the last two weeks of the session, from July 14–26, instruction will be given on this subject and students will be

admitted for it alone. No feature of library work is of such vital importance as the work with children. For this reason this will be an especial feature of the school and it is anticipated that many besides librarians will come for this two weeks' course. Teachers and mothers will find it practical, helpful and inspiring. Library trustees will get from it much that will help them in dealing with the perplexing question of children's books.

This course will include three series of lectures.

Series I. Special Lectures upon the Principal Classes of Children's Books:

Mythology and fairy tales,
History and historical stories,
Picture books and easy books for little children,
Fiction for boys and girls.

(Book lists will be provided to accompany these lectures. Students will also be given problems in connection with each class of books.)

Series II. Special Lectures upon Important Features of the Work of a Children's Department:

Personal relations between the children's librarian and the children, the teachers, and the parents,
The necessary records and statistics of a children's department,
How to make a picture bulletin and when to make one.

(Experience meetings will be a feature of this series.)

Series III. General Lectures.

The history of children's libraries,
The selection of books for a children's library,
The decorating and furnishing of a children's room or corner,
Cooperation between the public library and the public school,
Library leagues, story-telling, and other special features in library work for children.

(A list of suggested reading will accompany these lectures.)

ENTRANCE REQUIREMENTS

The course is intended especially for Iowa librarians who are in charge of small libraries. Those who have had some experience in library work or wish to prepare for definite positions will be given preference. Inasmuch as emphasis is laid on practice work and prompt technical revision and correction, the number admitted to the class must be limited.

Students will be received from other states if they meet the admission requirements and if the limit of students is not reached by Iowa applicants. Entrance examinations are not required, but candidates are supposed to have completed a high school course or its equivalent.

As the course in library work for children, especially Series I, deals with a subject of such general interest, students will be admitted for this course whether engaged in library work or not, and those from other states will be welcomed.

Applications should be made on the blank form to be obtained of the director, Miss Alice S. Tyler, State Library Commission, Des Moines, and should be sent in not later than June 1, 1902.

BOOKS

The following books will be used in the Summer School. Those marked with an asterisk are published by the U. S. Bureau of Education, Washington, D. C., and will be sent to any address without charge and should be obtained of the Bureau at once. Others will be on sale at the school.

Dewey. Simplified library school rules	$ 1.25
——— Decimal classification	5.00
——— Abridged edition (may be used if student owns it)	1.50
*——— ed. Papers prepared for World's library congress, 1893	Free
*Cutter. Rules for a dictionary catalog	Free
——— Decimal author table	1.25
American Library Association. List of subject headings	2.00
Dana. Library primer	1.00
*Catalogue of A. L. A. Library	Free

Supplies for practice work may be obtained at the school, the cost of which, aside from the books, will probably not exceed $5.00.

EXPENSES

The tuition fee in the Summer Session is five dollars. In addition to this fee there will be the cost of the library material necessary for practice work and the necessary text books, which will not exceed ten dollars.

For the course of Library work for children, the tuition fee will be one-half that for the full course.

There are no dormitories and no commons connected with the University. Clubs may be formed, in which the cost of day board is from $2.00 to $2.50 a week. Room rent varies from 50 cents to $1.50 per week for each student. Boarding and lodging in private houses can be obtained for from $3.00 to $5.00 per week.

Inquiries regarding rooms and board should be made of the Secretary of the Young Men's Christian Association.

A large modern house opposite the University grounds has been secured for the accommodation of the Library students. The cost of room and board in this house will not exceed $4.25 per week if two persons occupy one room.

REGISTRATION

Students on coming to the University should present themselves at the office of the Dean of the Summer Session, Room 113, Hall of Liberal Arts, for registration and assignment to classes.

Students are requested to register before 12 o'clock on Monday, June 16, as the class work will begin at 2 o'clock on that day.

Address all communications regarding the instruction to Miss Alice S. Tyler, Sec'y Iowa Library Commission, Des Moines, Ia.

COLLEGE OF LAW

COLLEGE OF LAW

THE FACULTY

GEORGE E. MACLEAN, PH. D., LL. D.,
President.

CHARLES NOBLE GREGORY, M. A., LL. D.,
Dean.

SAMUEL HAYES, M. S., LL. B.,
Resident Professor of Law.

HARRY SANGER RICHARDS, B. Ph., LL. B.,
Resident Professor of Law and Secretary of the Faculty.

ELMER ALMY WILCOX, B. A.,
Resident Professor of Law.

_____,*
Resident Professor of Law.

ELMIN MCCLAIN, M. A., LL. D.,†
Lecturer on Law.

HORACE EMERSON DEEMER, LL. B.,†
Lecturer on Law.

MARTIN J. WADE, LL. B.,‡
Lecturer on Law.

H. CLAUDE HORACK, B. PH., LL. B.,
Librarian.

* To be appointed.
† Of the Supreme Court of Iowa.
‡ Of the District Court of Iowa.

COLLEGE OF LAW

LENGTH OF COURSE

The College of Law was organized as a department of the University in 1868, the course of study covering one year. In 1884 the General Assembly passed an act requiring two years study for all candidates for admission to the bar, and the course of study in this department was extended to the same period. By act of the Twenty-eighth General Assembly (see Acts of the Twenty-eighth General Assembly, Chapter 11) the period of study for admission to the bar was extended to three years, and a preliminary education substantially equivalent to a three years high school course was required. With the view of conforming the course of study in the College of Law to this legislation and qualifying the graduates of the College for admission to the bar, the Board of Regents at its meeting in March, 1900, authorized the extension of the course from two to three years. The extension was made and the class of 1901 was the last class to graduate in the two years' course. The course is now one of three years.

INSTRUCTIONAL STAFF

At present the instruction is in the hands of a dean and three resident professors who devote their entire time to the school, and three lecturers who give extended courses. By the beginning of the University year, 1902–1903, it is expected that an additional resident professor will be elected.

REQUIREMENTS FOR ADMISSION

Graduates or matriculates of reputable universities or colleges, or graduates of state normal schools, may be admitted to the first-year class without examination upon presentation of diplomas or certificates showing such graduation or matriculation. All other applicants for admission to the College without exception will be examined to test their knowledge of English Grammar and their ability to write English clearly and correctly.

Graduates in the four-year courses of accredited high schools or academies may be admitted to the first-year class without farther examination upon presentation of diplomas or proper certificates of graduation.

Graduates of other high schools or academies whose courses of study are approved by the University and are at least three years in length, may be admitted to the first-year class without farther examination upon presentation of certificates signed by the Superintendent or the Principal and containing specific statements as to the amount of work done in each study. Blank certificates will be furnished upon application to the President of the University, or the Dean of the College of Law.

All other applicants for admission will be required to pass entrance examinations in the subjects named in the programme given below, and prescribed by the supreme court of Iowa for the preliminary examination of applicants for admission to the bar.

PROGRAMME OF ENTRANCE EXAMINATIONS

FIRST SEMESTER

Tuesday, September 23, and Wednesday, September 24, 1902.

English and English Grammar,	2 credits*,	Tuesday,	11:00 A. M. 4:30 P. M.
		Wednesday,	11:00 A. M. 4:30 P. M.
Arithmetic,	1 credit,	Tuesday,	8:00 A. M.
Geography,	1 credit,	Tuesday,	9:30 A. M.
English History,	1 credit,	Tuesday,	11:00 A. M.
United States History,	1 credit,	Tuesday,	1:30 P. M.
Civics,	1 credit,	Tuesday,	2:30 P. M.
Economics,	1 credit,	Tuesday,	3:30 P. M.
Algebra,	3 credits,	Wednesday,	8:00 A. M.
Physics,	2 credits,	Wednesday,	1:30 P. M.

Orthography and writing will be judged from the manuscripts presented.

SECOND SEMESTER

Saturday, February 7, and Monday, February 9, 1903.

The examinations will be held at the same hours as in the programme above, reading Saturday and Monday for Tuesday and Wednesday, respectively.

*One entrance credit is the equivalent of one high school study *five* times a week during a term of *eighteen weeks* on the basis of *four* studies a day.

For *each separate* examination given at any other time than that announced in the programmes which precede, a fee of *two dollars* will be charged by the University.

Applicants may offer themselves for examination in subjects which are real equivalents of any mentioned in the foregoing programme.

Any person expecting to enter the College of Law is advised to learn before the opening of the semester exactly what entrance examinations he will be required to pass. He can learn this by addressing the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given above.* He should present himself at once at the office of the University Examiner, who will give all necessary directions.

Students will find it to their advantage to enter at the beginning of a semester and best to enter at the beginning of the University year.

ADVANCED STANDING

SECOND YEAR

Applicants for admission to second year standing must comply with the conditions hereinbefore set out for candidates for the first year class, and in addition thereto must pass successful examinations in four of the principal subjects of the first year, or their equivalents, namely, Elementary Law, Contracts, Torts, Evidence, Agency, and Criminal Law and Procedure; they must also furnish either a certificate showing one year's study of law in a reputable law school, or the affidavit of a member of the bar in regular practice, stating that the applicant has studied with him for twelve months. Applicants who have already been admitted to the bar in states where an examination is required, may enter upon presentation of certificate showing admission to practice.

THIRD YEAR

Applicants for admission to third year standing must comply with all the conditions hereinbefore set out for candidates for admission to the first year class, and in addition thereto pass satisfactory examinations in four of the principal subjects of the first year course or their equivalents set out under the provisions governing second year standing; also in four of the

principal subjects of the second year course, viz.: Bills and Notes, Sales, Wills and Probate Law, Partnership, Corporations, Equity, Equity Pleading, and Real Property, or the equivalents of these subjects; they must also present certificates or affidavits showing two years' study of law, one of which must have been in a reputable law school and the other either in a reputable law school or under the direction of an attorney in active practice.

Examinations for advanced standing will be held on Tuesday, September 23, 1902, at 9:00 a. m., in the Old Capitol building. They cannot be given at other times.

SPECIAL STUDENTS

Applicants for admission to the College of Law, not candidates for a degree, but desiring to pursue special subjects, will be admitted on complying with the admission requirements governing candidates for degrees, or on showing by a special examination that they are qualified to pursue the subjects desired.

COURSE OF STUDY

The course of study is so arranged that the several classes have separate and distinct courses of study throughout. The elementary courses are grouped in the first year, and the specialized courses in the second and third years, the design being to cover the fundamental subjects of the law and to equip the student for the active practice of the profession.

FIRST YEAR

FIRST SEMESTER

Subject	*Text*	*Instructor*	*Per Week*
Contracts	Keener's Cases on Contracts	Dean Gregory	3 hrs.
Torts	Cooley on Torts	Prof. Hayes	3 hrs.
Elementary Law	McClain's Outlines	Prof. Wilcox	2 hrs.
Code Pleadings and Trial and Judgment	Iowa Code	Prof. Hayes	2 hrs.

SECOND SEMESTER

Evidence	Jones on Evidence	Judge Wade (10 weeks)	5 hrs.
Domestic Relations	Deemer's Outlines	Judge Deemer (5 weeks)	5 hrs.
Agency	Wambaugh's Cases on Agency	Prof. Richards (13 weeks)	5 hrs.
Criminal Law and Procedure	McClain's Outlines of Criminal Law and Proced., or Clark's Crim. Law and Beal's Crim. Law and Proc.	Prof. Wilcox (8 weeks)	5 hrs.

SECOND YEAR

FIRST SEMESTER

Sales	Williston's Cases on Sales	Dean Gregory	2 hrs.

Partnership	Burdick's Cases on Partnership	Prof. Richards	2 hrs.
Corporations	Elliott on Private Corporations (3d Ed.) Lectures on Public Corporations	Prof. Wilcox	3 hrs.
Equity & Equity Pleading	Selected Cases	Prof. Richards	3 hrs.

SECOND SEMESTER

Wills	Chaplin on Wills, Principles with Selected Cases	Dean Gregory (13 weeks)	2 hrs.
Trial Procedure	Deemer's Outlines	Judge Deemer (5 weeks)	5 hrs.
Probate Law	Code & Selected Cases	Prof. Richards	2 hrs.
Bills and Notes	Norton on Bills and Notes	Prof. Wilcox (13 weeks)	3 hrs.
Real Property	Tiedeman on Real Property	Prof. Hayes	3 hrs.

THIRD YEAR

FIRST SEMESTER

Carriers	McClain's Cases	Dean Gregory	3 hrs.
Conflict of Laws	Minor's Conflict of Laws	Prof Hayes	2 hrs.
Trusts Damages	Selected Cases on Trusts Beal's Cases on Damages	Prof. Richards	3 hrs.
Quasi Contracts	Keener on Quasi Contracts	Prof. Wilcox	2 hrs.

SECOND SEMESTER

International Law	Snow's Cases	Dean Gregory	2 hrs
Constitutional Law & Limitations	McClain's Cases on Constitutional Law	Judge McClain (10 weeks)	5 hrs.

Attachment and Garnishment Common Law Pleading Justice Practice	Code of Iowa Perry's Common Law Pleading	Prof. Hayes	3 hrs.
Insurance	Wood's Cases on Insurance	Prof. Wilcox (8 weeks)	5 hrs.

MOOT COURTS

For the purpose of affording the student practice in the application of legal principles to statements of fact, moot courts are conducted for a portion of each year in the first and second year classes and in the first semester of the third year and each student is required to conduct or defend causes in these courts. The courts are presided over by members of the faculty. The method and rules of procedure follow those of the trial courts, and the student is given an opportunity to draft pleadings and argue cases under these rules. This feature of instruction is an important one in the College. Students are encouraged to form club courts, and the faculty will aid such clubs in every possible way.

COMBINED LIBERAL ARTS AND LAW COURSE

Students of the College of Liberal Arts who have completed their junior year and are entitled to senior standing at the beginning of the University year may be enrolled in the College of Law and receive credit for one year's time of law study by complying with the following conditions: They must schedule for five hours per week in the College of Law in the subjects of the first year course, and five hours a week in courses in the College of Liberal Arts approved by a joint committee of the College of Liberal Arts and the College of Law from the group of subjects embracing Political and Social Science including political and institutional history; the remaining five hours may be elected in any course the student desires, subject to the regulations of the College of Liberal Arts. Students in this combined course who earn credit for Elements of Jurisprudence, International Law, and Constitutional Law in the College of Liberal Arts are excused from examinations in Elementary Law, International Law, and Constitutional Law, except Constitutional Limitations, as given in the College of Law, and the grades

made by students in such subjects in the College of Liberal Arts will be accepted as credits in the College of Law. Students of this course must, however, with the exception of the absolute equivalents above enumerated, pass examination in all the subjects of the law course prior to graduation. For the guidance of students in the combined course who do not elect all of the absolute equivalents it may be stated that Elements of Jurisprudence is an equivalent for Elementary Law, International Law for the same course in the College of Law, and Constitutional Law for the same course in the College of Law excepting that part dealing with Constitutional Limitations.

The right to enter the combined course rests within the discretion of the joint committee of the College of Law and the College of Liberal Arts. Students are not permitted to enter the combined course later than the beginning of the Senior year in the College of Liberal Arts.

INSTRUCTION IN THE COLLEGE OF LIBERAL ARTS

Law students who desire to take work in the College of Liberal Arts in addition to their regular work in the College of Law without being candidates for a degree in the College of Liberal Arts shall be allowed to take such work to an extent not exceeding five hours per week as long as they maintain a good standing in their law studies and as long as the work which they undertake in the College of Liberal Arts is done to the satisfaction of the professors in charge. This privilege is also subject to the discretion of the standing joint committee of the College of Law and the College of Liberal Arts. No additional charge is made for this instruction.

EQUIPMENT

The College of Law has the exclusive occupancy of the second floor and one half of the main floor in the Old Capitol Building. Certain of the larger classes meet in the auditorium of the new Liberal Arts Building.

LIBRARY

The Library contains over ten thousand volumes, comprising a full series of the reports of the Supreme Court of the United States and of the courts of last resort of thirty-six states, including all the series of reports most frequently referred to; also the

American Decisions, American Reports, American State Reports, Lawyers' Reports Annotated, English Ruling Cases, a collection of English Reports which (with additions lately made) is almost complete; full series of the Reporter System, and a large collection of law text-books. Students are allowed personal access to the book stacks.

The library is in charge of a regular librarian who renders valuable assistance to the students in the prosecution of their work.

The library room has within the year been greatly improved and enlarged by the removal of partitions and the completion of new galleries. It is open for the use of students from 8 a. m. to 12 m., from 1:30 to 5:30 p. m. and 7 to 9 p. m. of each day except Saturday, and it is open during the forenoon of Saturday.

HAMMOND HISTORICAL LAW COLLECTION

A valuable collection of twelve hundred volumes, many of them rare, relating principally to the Civil Law and History of the Common Law, was presented to the University by the widow of William G. Hammond, LL. D., the first Chancellor of the College of Law, and is kept in the law library as a separate collection. These books are in special cases, under the charge of the law librarian, and are accessible on request.

UNIVERSITY LIBRARY

The University Library, containing over 60,000 volumes, is also open to students of this College, and books may be drawn from it under reasonable regulations.

THESES

Each candidate for graduation must present to the faculty, on or before the first Monday in April, a thesis upon some legal topic approved by the faculty. Such thesis must be legibly written or printed by typewriter, on paper 8 x 10½ inches in size leaving a blank margin of at least one inch at side and at top and bottom. The thesis shall not be less than 1,500 words nor more than 2,500 in length, exclusive of citations of authorities. In citing cases the names of the parties as well as the volume and page of the report must be given. Each thesis must have on the first page thereof the subject of the thesis and the name of the writer, with the year.

The character of the thesis will be taken into account in determining whether the candidate is qualified to be recommended to the examining committee for final examination. All theses become the property of the College.

GRADUATION

Three years' study is essential to graduation, one year of which must have been spent in this College. Before being recommended for graduation the candidate must satisfy the faculty of his proficiency in all the prescribed studies of the course by passing examinations therein. If the candidate has pursued a portion of his studies in some other law school, he must pass satisfactory examinations in a sufficient number of the subjects for which credit is asked to satisfy the faculty of his proficiency before being given the credits set out in his certificate. Candidates must be of good moral character. Upon being recommended by the faculty, candidates must pass a final examination conducted at Iowa City by a commission appointed by the Supreme Court of Iowa in accordance with the statutes and rules of the Supreme Court regulating admission to the bar (see Acts Twenty-eighth General Assembly, Chapter 11). Upon passing such examination, candidates receive the degree of Bachelor of Laws and are entitled to practice in all the courts in the state of Iowa, oaths of admission being administered in connection with their graduation, and they receive the usual diplomas and certificates of admission. Candidates are also admitted to practice in the Federal Courts on graduation, the oath being administered at that time. Those who are not twenty-one years of age may pass the examination and receive their diplomas, but cannot be admitted to practice until attaining that age. Special students or those leaving the school in good standing prior to graduation are entitled to certificates showing the number of semesters spent in attendance at this College and the grades attained in the examinations passed.

LITERARY SOCIETIES

Two literary societies, The Hammond Law Senate, and The Forum, composed exclusively of students of this College, hold regular weekly meetings, furnishing to their members valuable training in debating and in the other exercises usually provided for by such organizations.

TUITION—FEES

The rate of tuition established by the Board of Regents is thirty dollars ($30) per semester of eighteen weeks, payable to the Treasurer of the University. For the combined course in the colleges of Law and Liberal Arts the tuition is fixed at $75 per year of 36 weeks,—$40 for the first semester and $35 for the second semester. It is required by recent action of the Board of Regents that tuitions shall be paid by new students at the time of their matriculation, and by old students at the time of registering for the semester. Tuition must be paid before the student is entitled to any of the privileges of the College. Each student, upon passing his final examination, is required to pay the sum of $7 as a graduation fee to cover the charge for diploma and for certificates of admission to the State and Federal Courts. There are no other fees or charges.

Law books may be procured through the law librarian from time to time, as needed, at a considerable reduction from list prices. They are not kept for sale by the book stores in Iowa City.

The College of Law owns about twelve sets of the text-books above mentioned as required in the course, which it will rent in sets to students, furnishing them all the books required for any year for $10 for the year. The rent sets do not include a law dictionary nor the Law Bulletin. As there are sometimes more calls for rent sets than can be met, those who desire to rent books should make application in advance.

EXPENSES—SELF-SUPPORT

There are no dormitories or commons connected with the University. Boarding and lodging in private houses can be obtained for from $3 to $5 per week. Clubs are formed in which the cost of living is from $1.50 to $2.50 per week.

While it is impossible for the University authorities to guarantee that any student will be able to earn his way through college, yet Iowa City with its eight thousand inhabitants furnishes many opportunities for employment. The Y. M. C. A. has established a free labor bureau which is at the service of students. The association makes a canvass of the city to find work and suitable lodging and boarding places

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For further information apply to George E. MacLean, President of the University, or to Charles Noble Gregory, Dean of the College of Law, State University of Iowa, Iowa City, Iowa.

COLLEGE OF MEDICINE

COLLEGE OF MEDICINE

FACULTY AND INSTRUCTORS

GEORGE EDWIN MACLEAN, PH. D., LL. D.,
President of the University.

PHILO JUDSON FARNSWORTH, M. A., M. D.,
Emeritus Professor of Materia Medica, and Therapeutics.

JOHN CLINTON SHRADER, M. A., M. D., LL. D.,
Emeritus Professor of Obstetrics, Gynecology, Clinical Gynecology, and Diseases of Children.

WILLIAM DRUMMOND MIDDLETON, M. A., M. D.,
Professor of Surgery and Clinical Surgery, and Dean of the Faculty.

LAWRENCE WILLIAM LITTIG, M. A., M. D., M. R. C. S.,
Professor of Theory and Practice of Medicine, and Clinical Medicine, and Assistant to the Chair of Surgery.

JAMES RENWICK GUTHRIE, M. A., M. D.,
Professor of Obstetrics and Gynecology.

ELBERT WILLIAM ROCKWOOD, M. A., M. D.,
Professor of Chemistry and Toxicology, and Secretary of the Faculty.

JAMES WILLIAM DALBEY, B. S., M. D.,
Professor of Ophthalmology.

CHARLES SUMNER CHASE, M. A., M. D.,
Professor of Materia Medica and Therapeutics.

WALTER LAWRENCE BIERRING, M. D.,
Professor of Pathology and Bacteriology.

JOHN WALTER HARRIMAN, M. D.,
Professor of Anatomy, Instructor in Operative Surgery, and Assistant to the Surgical Clinic.

WILLIAM ROBERT WHITRIS, M. S., M. D.,
Professor of Histology and Embryology.

LEE WALLACE DEAN, M. S., M. D.,
Professor of Physiology, Otology, and Rhino-Laryngology, and Assistant in the Department of Ophthalmology.

MARTIN J. WADE, LL. B.,
Professor of Medical Jurisprudence.

EMIL LOUIS BOERNER, Pharm. D.,
Professor of Pharmacy.

GERSHOM HYDE HILL, M. A., M. D.,
Lecturer on Insanity.

FRANK THOMAS BREENE, D. D. S., M. D.,
Lecturer on Dentistry,

JAMES FREDERICK CLARKE, M. A., M. D.,
Lecturer on Hygiene.

JOHN BLAIR KESSLER, M. D.,
Lecturer on Dermatology.

ELI GRIMES, M. D.,
Lecturer on Electro-Therapeutics.

GEORGE EDWARD DECKER, M. D.,
Lecturer on Pædiatrics.

JENNINGS PRICE CRAWFORD, M. D.,
Lecturer on Surgical Technique.

WILBER JOHN TEETERS, M. S., Ph. C.,
Assistant Professor of Pharmacy and Director of the Pharmaceutical Laboratory.

CHARLES WILLIS JOHNSON, B. S., Ph. C.,
Instructor in Chemistry.

FRANCIS NEWTON BRINK, M. S.,
Instructor in Chemistry.

ALBERTUS JOSEPH BURGE, M. S., M. D.,
Assistant Instructor in Physical Diagnosis in the Department of Theory and Practice of Medicine.

FRED W. BAILEY, B. S.,
Assistant Instructor in Physiology.

JOHN THOMAS MCCLINTOCK, B. A., M. D.,*
Demonstrator of Anatomy, Pathology and Bacteriology.

JOHN PATRICK MULLIN, M. D.,
Demonstrator of Anatomy.

THEODORE WILBERT KEMMERER, B. S., M. D.,
Demonstrator of Pathology and Bacteriology.

CHARLES MARTEL WERTS, B. S.,
Fellow in Chemistry.

CHARLES LEONARD SMITH, B. A.,
Scholar in Histology.

*Absent in Europe. It is expected that after September, 1902, Dr. McClintock will be in charge of the Department of Physiology.

HENRY ALBERT, B. S.,
Fellow in Pathology and Bacteriology.

CLARA BEATRICE WHITMORE, B. A.,
Tutor in Medical Latin.

ZADA M. COOPER, Ph. G.,
Assistant in the Pharmacy Laboratory.

JOHN LEALAND TAYLOR,
Undergraduate Demonstrator of Anatomy.

HENRY DELAVAN HOLMAN,
Undergraduate Demonstrator of Anatomy.

ALDEN ROBBINS HOOVER,
Undergraduate Assistant in Histology.

EDWARD ELLSWORTH BLYTHE,
Undergraduate Assistant in Histology.

COLLEGE OF MEDICINE

A thorough elementary preparation is required before entering on the course of medical lectures. The University offers a scientific course preparatory to the professional, and it is expected that many will avail themselves of this opportunity. In the branches of medicine there should be a thorough training in principles before the practical portion is begun. For this purpose a careful presentation of the subjects is made by lectures, and the knowledge fixed by recitations and frequent reviews. Ample means of illustration are used, and the materials for demonstration are abundant. In the practical branches abundant clinical material is furnished to illustrate the subjects taught.

Medical, surgical, gynecological, ophthalmological, dermatological, otological, and rhino-laryngological clinics are held each week during the term. Attendance upon these is required of all students, excepting those engaged in laboratory work during clinic hours.

The thirty-third annual course of lectures will begin on September 24, 1902, and will close on June 12, 1903.

The course extends through four years of thirty-six weeks each. The session is divided into two semesters of eighteen weeks, and the semester into two terms of nine weeks each.

BUILDINGS

The losses resulting from the fire of March, 1901, have been so far repaired that the college will be able to carry on its work effectively until the erection of its new building. By means of an appropriation from the emergency fund of the state it was possible to proceed with the immediate collection of material and the construction of a temporary structure. Several members of the faculty spent the summer in Europe, procuring in this way the most modern apparatus and other materials necessary for lecture and laboratory demonstration. For the laboratories enough microscopes were purchased to replace those destroyed, as well as other apparatus for the microscopic and

the physiological laboratories. The college was exceedingly fortunate in being able to obtain from similar institutions of England, Austria, France, and Germany a complete collection, representing all varieties of normal and pathological growths and tissues. A full outfit was also procured for teaching topographical and surgical applied anatomy, including models, skeletons, and other natural specimens.

The dissecting room occupies the whole of the basement of the building which was erected on the old site. On the first floor are a large amphitheatre seating 275 and a lecture-room accommodating 175. Besides these there are a number of rooms used for preparation, storage, etc. The histological and pathological laboratories are on the lower floor of the new fire-proof Hall of Liberal Arts. The physiological laboratory occupies the whole of the building formerly used by the departments of psychology and pedagogy.

THE PATHOLOGICAL MUSEUM

By personal visits to the pathological institutes of the larger European centers, the contributions of professional friends, and specimens derived from the University clinics and autopsies, the founding of the new pathological museum has made rapid and gratifying progress.

The museum at present possesses a very valuable and varied collection of preparations, especially adapted for illustration of the different pathological conditions. Physicians are earnestly requested to send to the Curator of the Museum, Professor W. L. Bierring, any specimens of healthy, morbid or comparative anatomy. For all such favors credit will be given by labeling the specimens with the name of the donor before placing them in the museum. Acknowledgement will also be made in the annual announcement. The following interesting contributions have been received during the past year.

Endothelioma cerebri	Dr. R. W. Hill, Davenport, Iowa
Sarcoma cerebri	Dr. L. W. Littig, Iowa City, "
Cranio-rachischisis	Dr. H. E. Day, Dumont, "
Foetus anomaly	Dr. S. N. Craig, Manchester, Iowa
Atheroma of scalp	Dr. E. T. Kegel, Wolcott, "
Melanotic sarcoma	Dr. W. A. Rohlf, Waverly, "
Angioma	Dr. W. A. Rohlf, " "
Osteomyelitis tibia	Dr. L. W. Littig, Iowa City, "
Tubercular arthritis	Dr. James Murphy, Iowa City, Iowa
Sarcoma of hand	" " " " " "
Sarcoma of parotid	Dr. L. W. Littig, " " "

Variola of foetus	Dr. C. B. Kimball, West Liberty, Iowa
Extensive stenosis of the colon	" " " " " "
Multiple cystoma of ovary	Dr. J. P. Crawford, Davenport, Iowa
Uterus, Caesarian section	Dr. J. P. Crawford, Davenport, Iowa Dr. S. B. Hall, Rock Island, Illinois
Extra-uterine pregnancy	Dr. J. P. Crawford, Davenport, Iowa
Carcinoma uteri	Dr. J. R. Guthrie, Dubuque, "
Myoma uteri	" " " " "
" "	" " " " "
Carcinoma mammae	" " " " "
Hydro-nephrosis	Dr. J. B. Kessler, Iowa City, Iowa
Chronic splenic tumor	" " " " " "
Cystoma ovarii	Dr. E. E. Munger, Spencer, Iowa
Myoma uteri	" " " " "
Nutmeg liver	" " " " "
Uterus metritis	Dr. J. A. Pringle, Bagley, Iowa
Liver, fatty infiltration	" " " " "
Secondary carcinoma of liver	Dr. L. W. Littig, Iowa City, Iowa
Carcinoma of stomach	" " " " " "
Necrotic intestine (band obstruction)	" " " " " "
Coccidium oviforme in liver of Belgian hare	Dr. F. H. P. Edwards, V. S., Iowa City, Ia.
Fibro-adenoma of spermatic cord	Dr. W. R. Fullerton, V. S., Iowa City, Ia.
Epithelioma of eyelid (horse)	" " " " " " "
Melanotic sarcoma (horse)	" " " " " " "
Aneurism of aorta	Drs. Barker & Barker, Stockport, Iowa
Bovine tuberculosis	Dr. Cooper, Meat Inspector, Omaha, Neb.
Polypoid myoma of uterus	Dr. James Murphy, Iowa City, Iowa
" " " "	" " " " " "
Molar gestation	Dr. A. Kegel, Shelby, Iowa
Cystoma ovarii	Dr. W. D. Middleton, Davenport, Iowa
Fibro-adenoma mammae	" " " " "
Myoma uteri	" " " " "
Carcinoma intestinalis	" " " " "
Vesical calculi	Dr. E. T. Kegel, Wolcott, Iowa
Taenia solium	" " " " "
Typhoid intestine	Dr. L. W. Littig, Iowa City, Iowa
Sarcoma of forearm	Dr. Wm. Moerschel, Homestead, Iowa Dr. James Peters, Oxford, Iowa
Carcinoma of stomach	Dr. Emmett Ady, West Liberty, Iowa
Carcinoma metastatic of the liver	" " " " " "

REQUIREMENTS FOR ADMISSION

1. Each applicant for admission must present to the Secretary of the Faculty a satisfactory certificate of good moral character, signed by two physicians of good standing in the state from which he comes.

2. The following classes of applicants may be admitted without examination:

a. Graduates or matriculates of reputable colleges, who present diplomas or certificates of honorable dismissal from such colleges, together with a special certificate that they have studied Latin at least one year.

b. Graduates of normal schools established by state authority, who present diplomas or certificates of graduation, together with a special certificate that they have studied Latin at least one year.

c. Graduates of accredited or other approved secondary schools, who present twenty-four preparatory credits, including at least one year of Latin. One preparatory credit is given for the successful study of one secondary school subject during a term of eighteen weeks with five recitations or exercises per week or an equivalent. These preparatory credits must be properly certified by the Superintendent or the Principal of the school from which the applicant comes, on the blank form which is inserted in this Announcement or on a similar form which can be obtained on application to the President of the University or the Secretary of the Faculty of the College of Medicine.

3. Applicants who present *twenty-two* preparatory credits properly certified (as indicated under 2c) may be admitted without examination, on condition that they complete their preparation *within one year from the date of their admission.* No applicant whose deficiencies exceed *two* preparatory credits will be admitted as a candidate for graduation.

4. In September, 1902, applicants who do not present credentials as described above will be admitted without conditions only upon passing examinations in the following preparatory subjects:

a.	Latin (one year)	2 preparatory credits
b.	English	2 preparatory credits
c.	United States History	1 preparatory credit
d.	Arithmetic	1 preparatory credit
e.	Algebra, through quadratics	3 preparatory credits
f.	Plane and Solid Geometry	3 preparatory credits
g.	Physics (one year)	2 preparatory credits
h.	Botany, or some other science	1 preparatory credit

5. The applicant who passes examinations in all of the subjects enumerated under 4, except such as stand for a total

of *two* preparatory credits, may be admitted *on the condition stated in paragraph* 3.

6. Applicants who present proper certificates covering all or any part of the preparatory studies designated under 4 for examination, may be admitted upon passing examinations in enough *other* preparatory studies to bring the total number of their preparatory credits up to *twenty-two, on the condition stated in paragraph* 3.

7. All applicants who are admitted without Latin will be required to take the one-year course in Medical Latin specially provided by the University, the fee being $5.00 for the course. This course is not a part of the regular course in medicine, but is offered as a convenience for such applicants for admission as have not studied Latin. The class in this course will be organized on Monday, September 29, 1902. Students who take this course are required to pay the fee at the time when they pay the first installment of their regular tuition.

8. Students who enter with conditions in *other* preparatory studies than Latin must pass the regular entrance examinations in these studies either in February or in September, 1903.

9. Students entering from other colleges of medicine with advanced standing must present credentials for preparatory work or be examined as stated above.

10. It is urged that any one expecting to enter the College of Medicine next September send all certificates of preparatory work to the University Examiner *as early in the summer as possible, and certainly before September 1*. If the credentials are satisfactory a card of admission will be sent to the applicant at once. Upon arriving in the city he should present this card to the Dean, or the Secretary of the Faculty, for signature.

ENTRANCE EXAMINATIONS

Any person expecting to enter the College of Medicine in September, 1902, should be careful to learn before the opening of the University exactly what entrance examinations he will be required to pass. He can learn this by addressing the President of the University, the Secretary of the Faculty of the College of Medicine, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given below*. He should

present himself at once at the office of the University Examiner, who will give all necessary directions.

For *each separate* examination given at any other time than that announced in the following programme, a fee of *two dollars* will be charged by the University.

PROGRAMME OF ENTRANCE EXAMINATIONS

MONDAY, SEPTEMBER 22, TO WEDNESDAY, SEPTEMBER 24, 1902

Latin,	2 credits,	Monday,	3:30 p. m.
English and English Grammar	2 credits,	Tues., 11 a. m. and Wed., 11 a. m.	4:30 p. m. and 4:30 p. m.
Arithmetic,	1 credit,	Tuesday,	8:00 a. m.
United States History,	1 credit,	Tuesday,	1:30 p. m.
Algebra,	3 credits,	Wednesday,	8:00 a. m.
Plane and Solid Geometry,	3 credits,	Wednesday,	9:30 a. m.
Physics,	2 credits,	Wednesday,	1:30 p. m.
Botany,	1 credit,	Wednesday,	3:00 p. m.

All students having deficiencies in their medical work will appear for examination according to the following schedule:

WEDNESDAY, SEPTEMBER 24

Histology,	8:00 a. m.
Physiology,	10:00 a. m.
Pathology,	10:00 a. m.
Anatomy,	11:00 a. m.
Materia Medica,	3:00 p. m.
Chemistry,	4:00 p. m.

REQUIREMENTS FOR ADMISSION TO THE COMBINED COURSE LEADING TO THE DEGREES B. PH. AND M. D., OR B. A. AND M. D.

1. Latin, including prose composition, 8 preparatory credits
2. English and Literature, *7 preparatory credits
3. History (may include Civics), 3 preparatory credits

*Since notice of this additional requirement in English and Literature was not given to accredited high schools until late in the autumn of 1901, not more than four preparatory credits will be required in September, 1902.

4. Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 preparatory credits
5. Plane and Solid Geometry,	3 preparatory credits
6. Electives (additional accreditable work in foreign language, English, History, or Science),	4 preparatory credits
Total,	28 preparatory credits

REQUIREMENTS FOR ADMISSION TO THE COMBINED COURSE LEADING TO THE DEGREES B. S. AND M. D.

1. Some one foreign language (Latin preferred,* but German or French accepted),	4 preparatory credits
2. English and Literature,	†7 preparatory credits
3. History (may include Civics),	3 preparatory credits
4. Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 preparatory credits
5. Plane and Solid Geometry,	3 preparatory credits
6. Electives (additional accreditable work in foreign language, English, History, or Science),	8 preparatory credits
Total,	28 preparatory credits

For a detailed statement of the requirements for admission, see the latest announcement of the College of Liberal Arts.

ADVANCED STANDING

In all cases those who enter from other schools with advanced standing must comply with the requirements for admission.*

Students from other accredited medical colleges who have attended one course of lectures will be admitted to the sopho-

*If one year of Latin is not included in the preparatory work it must be made up at the University.

†Since notice of this additional requirement in English and Literature was not given to accredited high schools until late in the Autumn of 1901, not more than four preparatory credits will be required in September, 1902.

more class upon passing an examination in the branches taught during the first year.

Those who have attended two courses will be admitted to the junior class upon passing an examination in the branches taught during the first and second years.

Those who have attended three courses will be admitted to the senior class upon passing an examination in the branches taught during the first, second, and third years.

Graduates from colleges in good standing, who, during their college course, have devoted regular time to the study of the following branches: Biology, Botany, Chemistry, Physics, Histology, Physiology, and Human Anatomy, may be admitted to the second year of the medical course.

The number of hours following has been adopted as covering the above requirements:

	DIDACTIC	LABORATORY
General Biology with Physiology, especially the physiology of circulation, respiration, nerve and muscle, excretion,	180	
Botany, collegiate grade,	72	
Mammalian Anatomy with comparative anatomy (human,)	60	60
Zoology, not including Anatomy,	120	120
Chemistry, non-metallic, metallic, and organic, including stochiometry,	100	200
Physics,	180	
Histology,		
Of cells and tissue,	32	48
Digestive tract, accessory glands, etc.,	22	33
Respiratory tract, skin, and nervous system,	36	72
Also genito-urinary histology,	—	—
Embryology,	60 (including laboratory)	

An opportunity will be given at this College for making up the human dissection of the freshman year.

Graduates from literary or scientific colleges having pre-medical courses which have been approved by this faculty will be admitted to the sophomore class upon the presentation of

certificate of graduation from such courses. All others should present specific statements of the work completed before graduation with the above as the minimum amount.

Colleges now having such courses or announcing the intention of establishing them are:

Coe College;
Des Moines College;
Iowa College;
Simpson College;
Western College.

Students entering under these conditions at the end of their first session must pass examinations in all branches of the freshman year not previously pursued by them. They must also have completed the work required of the sophomore class in the dissection of the human subject.

COMBINED COURSES

Arrangements have been made with the faculty of the College of Liberal Arts by which it will be possible for a student to receive credit in one college for work done in the other, thereby obtaining a degree in each in a shorter time than if the two courses were taken independently. These combined courses are especially recommended to all students who intend to enter the profession of Medicine.

COMBINED COURSE LEADING TO THE DEGREES OF B. S. AND M. D.

FIRST YEAR	SECOND YEAR
German—5	German—3
Mathematics—5	English—2
Drawing—3	Physics—5
English—2	Zoology—5
Military Drill—3	Animal Physiology—2
	Military Drill—3

THIRD YEAR	FOURTH YEAR
Botany—5	Medical work exclusively
Chemistry—5	
Animal Morphology—5	
Military Drill—3	

FIFTH YEAR	SIXTH YEAR
Medical work exclusively	Medical work exclusively

SEVENTH YEAR

French, 10 semester hours.
Elective, in College of Liberal Arts, 10 semester hours.

It is possible for students of marked ability to complete this course in six years by taking one year's work in French and one year's work in an elective in the College of Liberal Arts, in addition to the medical work, in the fifth and sixth years of the combined course or wherever it is practicable. Both degrees will be conferred at the end of the sixth year if the work has been completed, and to obtain them it must be taken as here outlined, no substitutions being permitted.

COMBINED COURSE LEADING TO THE DEGREES OF B. PH. AND M. D., OR B. A. AND M. D.

By selection of the above scientific branches as electives in the courses leading to the degrees of B. Ph. or B. A., in the College of Liberal Arts it will be possible to obtain either of these degrees with that of M. D. in seven years. For the details of these courses the announcement of that College should be consulted.

COMBINED COURSE LEADING TO THE DEGREES OF M. D. AND D. D. S.

By arrangement with the Dental Faculty students can obtain the degrees of Doctor of Medicine and Doctor of Dental Surgery by taking four years in the College of Medicine, and after that two years in the College of Dentistry. The work is not so arranged that the dental branches can be taken first. The requirements for admission are the same as those of the College of Medicine.

OUTLINE OF THE PLAN OF INSTRUCTION

DEPARTMENT OF ANATOMY

PROFESSOR HARRIMAN; DR. MULLIN, MR. TAYLOR, MR. HOLMAN

Anatomy is taught by means of lectures, conferences, recitations, and demonstrations, and by practical work in the laboratories.

Lectures are illustrated by charts, models, blackboard figures, wet and dry specimens, and recent dissections of the human body. A complete assortment of disarticulated human bones is loaned to each student at the beginning of the year. The laboratory of practical anatomy occupies the basement of the Medical Building. Recent legislative enactment provides ample material for dissection.

1. OSTEOLOGY—A course in the anatomy of the human skeleton by means of lectures, recitations, and demonstrations. Four hours each week during first semester, freshman year. Professor HARRIMAN.

2. ARTHROLOGY, MYOLOGY, AND ANGIOLOGY—A course in the anatomy of joints, muscles, arteries, veins, and lymphatics, by lectures, recitations, and demonstrations upon the dissected human body. Four hours each week during first term of second semester, freshman year. Professor HARRIMAN.

3. SPLANCHNOLOGY—A course in the anatomy of the viscera and allied structures, by means of lectures, recitations, and demonstrations upon dissected bodies and wet specimens. Four hours each week during second term of second semester, freshman year. Professor HARRIMAN.

4. PRACTICAL ANATOMY—A course in the dissection of the human body. Ten hours each week during first term of second semester, freshman year, 3:30 to 5:30 p. m. daily, except Saturday. Dr. MULLIN, Mr. TAYLOR, Mr. HOLMAN.

5. OSTEOLOGY, ARTHROLOGY, MYOLOGY, AND ANGIOLOGY—A course consisting wholly of recitations upon subjects taken up during the freshman year. Four hours each week during

first term of first semester, sophomore year. Professor HARRIMAN.

6. PRACTICAL ANATOMY—A course in the dissection of the human body. Ten hours each week during second term of first semester, sophomore year, 3:30 to 5:30 p. m. daily, except Saturday. Dr. MULLIN, Mr. TAYLOR, Mr. HOLMAN.

7. SPLANCHNOLOGY—A lecture, demonstration, and recitation course in the anatomy of the viscera of the trunk and genito-urinary organs. Four hours each week during second term of first semester, sophomore year. Professor HARRIMAN.

8. NEUROLOGY AND ORGANS OF SPECIAL SENSE—A didactic, recitation, and conference course in the anatomy of the cerebro-spinal nervous system and organs pertaining to the special senses. Four hours each week during first term of second semester, sophomore year. Professor HARRIMAN.

9. APPLIED ANATOMY—A didactic, recitation, and demonstration course on the anatomy of important regions, with special reference to its application in medical and surgical diagnosis. Three hours each week during second term of second semester, sophomore year. Professor HARRIMAN.

10. SURGICAL ANATOMY—A lecture and recitation course on anatomy as applied to surgery. One hour each week during second semester, junior year. (Elective). Professor HARRIMAN.

DEPARTMENT OF PHYSIOLOGY

PROFESSOR DEAN; MR. BAILEY

The department of Physiology occupies a suite of rooms which includes a laboratory of experimental physiology and a room for animals. The latter is so arranged that frogs, turtles, rabbits, etc., can be kept throughout the whole year under suitable conditions. The room is supplied with separate compartments so that animals which are being experimented upon can be kept by themselves and observed.

The physiological laboratory is equipped with a full supply of apparatus, instruments, and chemicals for experimental purposes. The outfit includes artificial respiratory machines, myographs, chronographs, various kinds of electrical batteries, galvanometers, ergographs, kymographs, stethometers, sphygmographs, hemometers, hemoglobinometers, and cardiographs.

In addition the laboratory is well equipped with various artificial eyes, retinoscopes, ophthalmoscopes, models of the eye and ear, and instruments for determining the acuity of vision and hearing.

The course in Physiology is graded in the first and second years.

In the first year the students hear the lectures and attend recitations. The lectures are abundantly illustrated by charts and by experiments upon the living animal and upon the human subject. These lectures cover, as far as possible, the subject of biology and the proximate analysis of the human body, the fundamental laws governing life, a study of the fundamental physiological processes in the body, and a study of the nutritive media, the lymph, chyle, and blood, the elementary functions of the nervous system, and the physiology of reproduction, secretion, excretion, circulation, respiration, and the digestive and nutritive processes.

In the second year the work is made as practical as possible and includes lectures upon the nerves, muscles, and locomotor mechanism and the physiology of the central nervous system, of the eye, the ear, the nose, the throat, and the larynx. In addition to the lectures and recitations, the student does practical experimental work in the laboratory. For this the class is divided into sections, and each section works under the immediate supervision of the professor or instructor in Physiology. The physiological laboratory is open from nine o'clock in the morning until six o'clock in the evening, and, as the instructor is always present, the student can work as much time outside of his regular hours as he cares to. The student is made familiar with the various apparatus and physiological instruments and their uses and is also taught the methods of experimentation. He is supplied with living animals and upon these studies the physiological activity of the various parts and the organs under normal and abnormal conditions, being required to keep an accurate record of his experiments. Each student is required to complete at least fifty different physiological experiments.

In the third year a practical course on the physiology of the special senses and physiological optics is given. The laboratory is at all times open to students taking this course. In this course the student studies models of the eye and ear, and performs a number of experiments with the Kuehne artificial eye,

observing how it can be converted into a myopic, hyperopic, emmetropic, or astigmatic eye, and how the error of refraction of the eye may be corrected under these circumstances. He studies the muscle model of the eye, and observes the action of the various muscles upon the eye-ball and the interference with this motion as a result of the paralysis of one or of a group of these muscles.

Models of the ear are furnished and the student observes the methods by which sound is transferred from the external world to the inner ear, and the action of the various pathological changes in the inner ear upon the transmission of sound waves.

Each student is supplied with a perimeter, an ophthalmoscope, and a retinoscope. He makes practical determination of the fields of vision in the human subject and learns to use the ophthalmoscope and the retinoscope upon artificial eyes, upon the rabbit's eye, and upon the human eye.

This course is designed to give the student a practical knowledge of the instruments and physiological methods commonly used in the practice of medicine, especially in ophthalmoscopy and refraction.

1. ELEMENTARY PHYSIOLOGY—Lectures, recitations, and demonstrations dealing with the physiology of the animal and plant cell, the fundamental properties of protoplasm, and the proximate principles of the animal body. Three hours a week, first term, first semester, freshman year. Professor DEAN.

2. SYSTEMIC PHYSIOLOGY—Lectures, recitations, and demonstrations. This course includes the physiology of blood, circulation, respiration, and the lymphatic system. Three hours a week, second term, first semester, freshman year. Professor DEAN.

3. PHYSIOLOGY OF SECRETION—Lectures, recitations, and demonstrations dealing with the physiology of secretion. Both the external and the internal secretions are studied. The changes in the secretory cells and the nervous mechanism governing the secretions are investigated. The course includes a discussion of the physiology of the kidney, skin, ductless glands, and other glands in the body. Three hours a week, first term, second semester, freshman year. Professor DEAN.

4. PHYSIOLOGY OF DIGESTION—Lectures, recitations, and demonstrations. This course includes a study of the various

digestive juices and their activities, the nervous mechanism governing the digestive organs, the absorption of food-stuffs, and body metabolism. Three hours a week, second term, second semester, freshman year. Professor DEAN.

5. PHYSIOLOGY OF MUSCLE AND NERVE—Lectures, recitations, and demonstrations. This course includes a study of the activity of muscle and nerve under normal and abnormal conditions and the electrical disturbances in muscle and nerve. Three hours a week, first term, first semester, sophomore year. Professor DEAN.

6. GENERAL PHYSIOLOGY OF THE CENTRAL NERVOUS SYSTEM—Lectures, recitations, and demonstrations. This course includes the physiology of the spinal cord, sympathetic system, and the peripheral nerves. Three hours a week, second term, first semester, sophomore year. Professor DEAN.

7. PHYSIOLOGY OF THE BRAIN AND CRANIAL NERVES—Lectures, recitations, and demonstrations. Three hours a week, first term, second semester, sophomore year. Professor DEAN.

8. PHYSIOLOGY OF THE SENSES—Eye, ear, taste, smell, cutaneous and muscular sensations. Lectures, recitations, and demonstrations. Three hours a week, fourth term of the sophomore year. Professor DEAN.

9. EXPERIMENTAL PHYSIOLOGY—Laboratory work and demonstrations. This course includes a study of physiological apparatus and its uses. Experiments to demonstrate the functions of the muscular, nervous, respiratory, circulatory, and digestive systems, and on the eye and ear, are performed by the students on frogs, turtles, rabbits, pigeons, dogs, etc.

The class is divided into sections. Fifty-four hours during the sophomore year for each section. Professor DEAN, Mr. BAILEY.

10. APPLIED PHYSIOLOGICAL METHODS—Lectures, recitations, and laboratory work. This course includes a study of the refractive media of the normal eye, of the ophthalmoscope, the retinoscope, the ophthalmometer, the perimeter, and their uses.

The class in sections will use in the laboratory the above mentioned instruments until thoroughly familiar with them. Lectures one hour a week, second term, first semester, and first term, second semester, junior year. Laboratory work fifteen hours. Professor DEAN, Mr. BAILEY.

11. ADVANCED PRACTICAL PHYSIOLOGY—Elective. This course is open to students who have completed Courses 1 to 10, inclusive. The student may select any subject in Physiology and do advanced work. He will be supplied with animals and apparatus for this work. Nine hours a week during senior year. Professor DEAN, Mr. BAILEY.

DEPARTMENT OF CHEMISTRY AND TOXICOLOGY

PROFESSOR ROCKWOOD; MR. JOHNSON, MR. BRINK, MR. WERTS.

The lectures in Chemistry are delivered in the Medical Building. The work in Practical Chemistry is conducted in the Chemical Building of the University in which the College of Medicine occupies rooms on the ground floor. These consist of rooms for the instructors, storerooms, and two large laboratories. They are well lighted, and are heated by steam. Ventilating shafts remove offensive and injurious gases. The outfit is ample for demonstrating the general principles of Chemistry, as well as its application to medicine. Each student is supplied free of charge with a set of the necessary apparatus, being obliged to pay only for that which is injured or destroyed.

The course in Chemistry is designed, first, to give the student a thorough knowledge in fundamental principles, then to assist him in applying these to the problems which he will meet in the practice of his profession. The lectures are fully illustrated by experiments.

1. CHEMISTRY OF THE NON-METALLIC ELEMENTS—Lectures and recitations. Freshman year, first semester. Three hours each week. Professor ROCKWOOD.

2. CHEMISTRY OF THE METALS AND THEIR COMPOUNDS—Lectures and recitations. Freshman year, second semester, first term. Three hours each week. Professor ROCKWOOD.

3. ORGANIC CHEMISTRY—Lectures and recitations. Freshman year, second semester, second term. Three hours each week. Professor ROCKWOOD.

4. QUALITATIVE ANALYSIS—A laboratory course. It includes, first, the methods of testing for the metallic poisons; then the common medicinal compounds are studied. The student learns the methods of chemical manipulation and the use of apparatus, and also becomes acquainted with the action

of reagents and of the common chemicals upon each other. The course includes the chemical examination of water from a sanitary standpoint, each student making a number of analyses of various wholesome and polluted waters. Freshman year, first semester, and first term of second semester. Six hours each week. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK, Mr. WERTS.

5. VOLUMETRIC ANALYSIS—A laboratory course. Volumetric methods of quantitative analysis are especially adapted to the needs of the physician because of the rapidity and ease with which they can be executed. The principal ones are taught and the student is given enough practice to familiarize him with them. Freshman year, second semester, second term. Six hours each week. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

6. PHYSIOLOGICAL CHEMISTRY—Lectures and recitations. The lectures are in explanation and amplification of the laboratory work. They include the study of the proximate principles of the body and their chemical changes, also foods and digestion, blood, milk, urine, fermentation, and bacterial products. Sophomore year, first semester, and first term of second semester, two hours each week, and second term, one hour each week. Professor ROCKWOOD.

7. GENERAL PHYSIOLOGICAL CHEMISTRY—A laboratory course. The proximate principles of the body and food materials are prepared by the student and their properties and chemical changes are studied. Experiments in artificial digestion are made, their products being isolated and examined. The constituents of the blood are tested chemically and spectroscopically. Sophomore year, first semester. Two hours each week. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

8. APPLIED PHYSIOLOGICAL CHEMISTRY—A laboratory course. The modern methods of Physiological Chemistry are here used in solving problems which arise in the practice of medicine. These include such as the analysis of the gastric juice, quantitative tests being made where they are valuable for diagnostic purposes; the qualitative tests for the abnormal constituents of the urine, with the quantitative determination of such as are of importance; the identification of urinary sediments, of calculi, and of blood stains. Each student makes a complete examination of a large number of each of these,

handing in written reports for correction and suggestions. Sophomore year, second semester. Two hours each week. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

9. TOXICOLOGY—Lectures and recitations. The physiological and chemical action of the principal poisons is considered as well as their antidotes. The methods of identifying poisons in food, excreta, etc., are explained and illustrated by experiments. Junior year, first semester, and first term of second semester. One hour each week. Professor ROCKWOOD.

10. CHEMISTRY AS APPLIED TO SANITARY SCIENCE—An optional laboratory course. Included in this are the methods suitable for the physician or health officer in testing water, air, milk, and other food materials as to their purity, together with the means of detecting preservatives, adulterants and substitutes. The student works independently as the course is outlined by the head of the department. The number may be limited according to the accommodations of the laboratory. Junior year, second semester. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

11. ADVANCED WORK—Suitable courses will be outlined to meet the requirements of the individual graduate student desiring to carry on advanced work either as a major or as a minor in a course leading to an advanced degree in the Graduate College of the University. The applicant for such a course must satisfy the head of the department as to his knowledge of general chemistry and as to his fitness for undertaking original investigations. The work will be under the direct supervision of the professor in charge of the department. Throughout the year. Time to be arranged. Professor ROCKWOOD.

DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY

PROFESSOR WHITEIS; MR. HOOVER, MR. SMITH, MR. BLYTHE

The Histological Laboratory occupies rooms in the College of Liberal Arts. There are laboratories for class work and for special work. The department is furnished with fifty-five compound microscopes and a number of dissecting microscopes. Among the other equipment may be mentioned several microtomes for brain sections, celloidin work, and paraffin work; incubators and injection apparatus; also the reagents and appli-

ances usually found in a well-furnished histological and embryological laboratory.

1. THE HISTOLOGY OF CELLS AND TISSUES—The first work of the course is on the structure and manipulation of the microscope. It is followed by a consideration of the classification and action of stains. Cell structure, as seen in the simpler forms of plant and animal cells, is first studied, then the more highly differentiated animal cells. After this the histology of the animal tissues is taken up. Freshman year, first semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

2. THE HISTOLOGY OF THE DIGESTIVE TRACT, GENITO-URINARY TRACT, AND RESPIRATORY TRACT—Freshman year, first semester, second term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

3. THE HISTOLOGY OF THE SKIN AND NERVOUS SYSTEM —Freshman year, second semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

4. EMBRYOLOGY AND BIOLOGY—The embryos of the chick, the frog, and some mammal will be studied, in addition to the lower forms of animal life. Freshman year, second semester, second term.

One lecture and one recitation each week. Professor WHITEIS.

Laboratory work, two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

5. LABORATORY TECHNIQUE—An optional course. Freshman year, second semester, second term. Two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

6. ADVANCED WORK FOR A DEGREE IN THE GRADUATE COLLEGE—As a prerequisite to advanced work in this department the student will be required to possess a good working

knowledge of both the methods and the subject matter of general histology and embryology. He will be assigned a private laboratory and offered such opportunities as the general laboratory and library afford. The department will supply the necessary materials in the way of tissues and reagents.

Two courses are offered as follows:

I. *The Eye*—The histology of its tissues, considered in relation to both their phylogenetic and their ontogenetic development. The structure and development of the retina will be specially studied.

II. *The Ear*—The investigation will proceed along the same lines as in the preceding course.

Throughout the year, hours to be arranged. Professor WHITNIS.

DEPARTMENT OF MATERIA MEDICA AND THERAPEUTICS

PROFESSOR CHASE; PROFESSOR BOERNER, ASSISTANT PROFESSOR TEETERS, DR. GRIMES, MISS WHITMORE, MISS COOPER

1. INORGANIC MATERIA MEDICA—The course is introduced by definitions, routes and modes of administering drugs, dosage, classification of official preparations, and a discussion of prescription-writing, including the subject of incompatibilities. Following such general topics inorganic drugs are taken up in a natural order of grouping. Sophomore year, first semester. Two lectures and one recitation each week. Professor CHASE.

2. ORGANIC MATERIA MEDICA—Drugs both of vegetable and of animal origin will be considered. As before they will be grouped with reference to some dominant or characteristic action. Thus are grouped together drugs affecting the nervous system, the heart, and circulatory system, the respiration, etc. Toward the close of the year a general review is given. Sophomore year, second semester. Two lectures and one recitation each week. Professor CHASE.

3. THERAPEUTICS—General Therapeutics is presented at the outset by means of such subjects as pneumotherapy, hydrotherapy, balneotherapy, climato-therapy, psychotherapy, hyp-

notism, suggestion, heat and cold, light and darkness, and other general therapeutic measures more or less mechanical. Junior year, first semester, first term. Two lectures and one recitation each week. Professor CHASE.

4. THERAPEUTICS—Following the preceding course drugs of a general nature or such as affect the tissues of the body generally, and drugs which affect particular organized systems, are presented separately: for example, those used to stimulate or depress the heart, to modify nutrition, or those which act upon the nervous system. Junior year, first semester, second term. Two lectures and one recitation each week. Professor CHASE.

5. THERAPEUTICS—The preceding course is followed by a discussion of local remedies; that is, remedies acting upon mucous membranes to stimulate their functional activity. Prescription writing will be given careful attention throughout the year, the aim being to illustrate each drug with one or more practical prescriptions and to discuss briefly its mode of administration. Junior year, second semester. Two lectures and one recitation each week. Professor CHASE.

6. EXPERIMENTAL PHARMACOLOGY—During both semesters of the Junior year a practical course is given, illustrating the action of the more important drugs upon the inferior animals.

7. THEORY AND PRACTICE OF PHARMACY—A lecture course. The history of the pharmacopœia will be discussed, also metrology, with special attention to the metric system. The processes used in pharmacy which are of especial interest to the medical student will be considered, such as solution, clarification, percolation, the determination of specific gravity, the preparation of emulsions, suppositories, cachets, tablet-triturates, etc. The prescription from the pharmaceutical standpoint will receive careful attention. Freshman year, second semester. One hour each week. Assistant Professor TEETERS.

8. PHARMACEUTICAL PREPARATIONS—A laboratory course. The satisfactory production of twenty-five preparations, embracing the various classes of the U. S. Pharmacopœia, National Formulary, etc., also work in filling prescriptions illustrative of chemical and pharmaceutical incompatibility, is required. Sophomore year, first semester, first term. Forty-eight hours. Professor BOERNER, Assistant Professor TEETERS, Miss COOPER.

9. MEDICAL LATIN—Those who have had but little opportunity to study Latin previous to entering upon their medical work will be afforded an opportunity in this course for special drill with the view to acquiring such a knowledge as must be in the possession of the accurate prescription-writer. It includes the work outlined in Crothers and Bice's *Elements of Latin*, and, in connection with this, work on prescription-writing. In the first semester the grammar is studied, including the two independent sets of exercises upon each chapter. These are especially designed to present those principles of Latin etymology and construction which are essential to an intelligent use of the terminology of pharmacy and medicine. In the second semester the study of the grammar is continued, special attention being given to the pharmacopœial nouns and anatomical terms. The prescription is taken up, its definition, analysis, formulæ, form, grammatical construction, language, and synthesis being studied. A review of the entire work completes the course. Throughout the year. Two hours each week. Miss WHITMORE.

10. ELECTRO-THERAPEUTICS AND MASSAGE—The construction and manipulation of the various forms of apparatus are first considered and the practical workings of batteries and their accessories are demonstrated. The fundamental laws of electricity are given briefly, those of use to the student and practitioner being emphasized. The consideration of the currents in common use follows, with their differences and measurements. This includes galvanic, induced, alternating, and interrupted currents, also the choice of currents for different purposes, as the cautery, electrolysis, cataphoresis, etc. The physiological effect of the current, its therapeutical uses, and the electric current in diagnosis are considered. The use of the static machine and X-ray apparatus is taught by actual work and demonstration. The course includes also the principles of massage. Junior year, second semester. Twelve hours. Dr. GRIMES.

11. PRACTICAL THERAPEUTICS—An elective course. This consists in the preparation of theses by the students, upon stated cases involving original research and reference to the latest and most approved medical periodicals. Such theses will be read and discussed by the members of the senior class. A brief course in invalid cookery will also be presented as an

elective. One hour each week, first semester and first term of second semester.

General review of entire subject. Second term of second semester. One hour each week. Professor CHASE.

DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY

PROFESSOR BIERRING; DR. KEMMERER, DR. ALBERT, MR. LAMBERT

The course in Pathology and Bacteriology extends through the sophomore, junior, and senior years, and is presented by means of didactic lectures, recitations, demonstrations, and laboratory work. The lectures are devoted to Bacteriology and general and special Pathology, and are illustrated by means of drawings, preparations from the Medical Museum, and fresh specimens derived from post-mortem examinations and the University clinics.

The laboratory of Pathology and Bacteriology is situated in the College of Liberal Arts. It is thoroughly equipped with new microscopes of the most modern type, and all apparatus necessary for carrying on every form of bacteriological research. By reason of special association with the pathological institutes of Vienna, Leipzig, and Munich, the laboratory has come into possession of a most complete and varied collection of diseased tissues and organs, for the study of general and special pathological histology. Each student is provided with a table, a microscope, and the necessary staining reagents.

1. GENERAL PATHOLOGY AND PATHOLOGICAL HISTOLOGY —A didactic, recitation, and laboratory course, including the general features of infection, and the causation of disease processes, disorders in circulation and nutrition, inflammation, and allied subjects. The laboratory work consists of two hours each week from January to June, and illustrates the didactic lectures. It comprises the preparation and study of slides showing the general pathologic changes that occur in human tissues. Special attention is given to the drawing of the microscopic specimens; to test the knowledge of the student reviews of unknown specimens are given at different times during the course. Sophomore year, four hours each week. Professor BIERRING, Dr. ALBERT.

2. BACTERIOLOGY—A didactic, recitation, and laboratory

course for juniors from September to January, which includes the preparation of artificial culture-media, the cultivation of micro-organisms, and their separation by means of plate cultures, the staining, recognition, and diagnosis of the different pathogenic microbes as they are related to the various infectious processes.

Special attention is given to the bacteriologic analysis of water, and the practical application of bacteriologic technique to hygiene and clinical diagnosis. The didactic lectures will include such subjects as cannot properly be pursued in connection with the laboratory work. A recitation will be held each week during the course. Junior year, seven hours each week, from September to January. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT, Mr. LAMBERT.

3. SURGICAL PATHOLOGY—A laboratory course for juniors comprising principally the preparation and study of tumors.

The extensive materia from the University clinics is drawn upon, which, with the collection in possession of the laboratory, affords the opportunity of studying every possible variety of tumor formation.

Special attention is given to the drawing of microscopic sections. This and the occasional reviews of unknown specimens test the student's ability properly to make a microscopic diagnosis. Junior year, two hours each week during the second term of the first semester. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT.

4. SPECIAL PATHOLOGY—A didactic, demonstration, recitation, and laboratory course, with reference to the special pathology of the different tissues and organs of the human body.

The laboratory work will comprise the preparation and study of microscopic sections, illustrating as far as possible the subjects considered in the didactic lectures. Frequent demonstrations of gross pathologic preparations derived from the clinics, autopsies, and the Medical Museum will further elucidate the subject. Junior year, five hours each week, from January to June. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT.

5. CLINICAL MICROSCOPY AND HÆMATOLOGY—A laboratory course for senior students, devoted to practical study of blood, urine, sputum, stomach contents, vomitus, fæces, milk, dropsical effusions, and cyst contents, and instruction in such

methods of clinical diagnosis as involve the usual microscopic and bacterial analysis. Special attention is given to the rapid diagnosis of fresh material, uterine curettings, and the early signs of malignancy. Senior year, two hours each week during the first semester and first term of the second semester. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT.

6. AUTOPSIES—Post-mortem examinations are made of all available cases. Since no stated time can be set for these demonstrations, members of both junior and senior classes are excused from other work in hand to attend the clinical autopsies.

Students are permitted to assist at post-mortem examinations and are instructed in the methods of making such examinations and of recording proper protocols of the results.

The microscopic findings are studied in each case for comparison with the macroscopic changes. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT.

7. ADVANCED WORK AND SPECIAL RESEARCH—Opportunity is afforded to senior and advanced students to pursue special researches in pathology and bacteriology.

Candidates for higher degrees and members of the Graduate College can carry on special work in pathology and bacteriology leading up to such degrees in the pathological laboratory under the supervision of the head of the department. Professor BIERRING.

DEPARTMENT OF THEORY AND PRACTICE OF MEDICINE

PROFESSOR LITTIG; DR. BURGE, DR. DECKER

The instruction is both by lectures and by clinics. Many of the subjects treated in the didactic course find illustration in the hospital amphitheater, and pathological study is facilitated by post-mortem examinations, as well as by wet and dry preparations from the museum.

1. THEORY AND PRACTICE OF MEDICINE—Lectures to the junior and senior classes. First semester, two hours each week; second semester, four hours each week. Professor LITTIG.

2. DISEASES OF THE NERVOUS SYSTEM—Lectures to the junior and senior classes. First semester, two hours each week. Professor LITTIG.

3. RECITATIONS AND REVIEWS in the above subjects. Senior class, two hours each week; junior class, one hour each week; throughout the year. Professor LITTIG.

4. CLINICAL INSTRUCTION IN GENERAL MEDICINE—Junior and senior years, two hours each week throughout the session. Professor LITTIG.

5. BEDSIDE INSTRUCTION IN CLINICAL MEDICINE—Senior year, one hour each week. Professor LITTIG.

6. PHYSICAL DIAGNOSIS—A course of practical bedside instruction given to the class in small sections in which the means, methods and principles of diagnosis are demonstrated and the student required by personal work to discover and differentiate diagnostic symptoms and correlate them into definite disease pictures. Daily throughout the session. Junior year. Dr. BURGE.

7. PÆDIATRICS—This subject is presented by means of lectures and recitations. Special stress is laid upon diagnosis, particularly of the contagious diseases and those of the gastro-enteric tract. The practical treatment of the common ills of infancy and childhood receives careful attention. Senior year, first semester, second term, twelve hours. Dr. DECKER.

DEPARTMENT OF SURGERY

PROFESSOR MIDDLETON; DR. LITTIG, DR. BIERRING, DR. HARRIMAN, DR. CRAWFORD, DR. DECKER

This subject is graded in the third and fourth years, and is taught by lectures and recitations; by laboratory work in minor surgery, operations on the cadaver, and surgical technique; by ward classes, and by clinics in the University Hospital, at which operations in every branch of surgery are open to the class.

1. THE PRINCIPLES OF SURGERY—Hyperæmia; simple inflammation; infective inflammation; the process of repair; gangrene; shock; fever; surgical fevers; septicæmia; pyæmia; erysipelas; hospital gangrene; tetanus; hydrophobia; actinomycosis; anthrax; glanders; snake-bite; tuberculosis; surgical tuberculosis of joints and bones; syphilis. Lectures and recitations, three hours a week, first semester, junior and senior years. Professor MIDDLETON.

2. OPERATIVE TECHNIQUE—Lectures and practical work on operative procedures, principles of asepsis, antisepsis, and sterilization; preparation of patient and operator, of instruments and operating rooms; anæsthesia and anæsthetics; hæmostasis; ligatures; sutures; dressings and care of wounds. The technique of kidney, gall-bladder, stomach, and intestinal surgery, and other operations, such as trephining, tracheotomy and intubation, are illustrated before the class on the lower animals under antiseptic regulations. One hour a week, first semester, junior year. Dr. CRAWFORD.

3. MINOR SURGERY, BANDAGING, AND DRESSING—Practical instruction, by demonstration and practice, in the various manipulations of Minor Surgery, including the application of splints, and bandaging. Two hours a week, first semester, junior year. Dr. LITTIG, Dr. DECKER.

4. TUMORS—A special course on the classification, description, and pathology of tumors, with general principles of treatment. Lectures and recitations, with laboratory demonstration. One hour a week, first semester, senior year. Dr. BIERRING.

5. THE PRACTICE OF SURGERY AND ORTHOPEDIC SURGERY—Injuries and diseases of regions and systems; fractures and dislocations; deformities, with general principles of pathology and treatment. Lectures and recitations, four hours a week, second semester, junior and senior years. Professor MIDDLETON.

6. OPERATIVE SURGERY—A dissecting-room course, consisting of all the operations in modern surgery, performed by sections of the class, under the supervision of instructors. Two hours a week, first semester, senior year. Dr. HARRIMAN.

7. WARD CLASSES—Examinations, observation, and dressing of patients, in wards of the University Hospital, in company with the Assistant to the Chair of Surgery. Class in sections, one hour a week, first and second semester, senior year. Dr. LITTIG.

8. CLINICAL SURGERY—Clinics, at which advanced students are required to assist, and at which operations and manipulations in general surgery are demonstrated to students of third and fourth years, and to other students whose schedule does not prevent attendance. Three to four hours a week throughout the junior and senior years. Professor MIDDLETON.

9. ANÆSTHETICS—During the senior year each member of the class will receive practical instruction in the production of general and local anæsthesia, under the supervision of the anæsthetist of the surgical clinic. Class in sections, one section a week, senior year. Dr. HARRIMAN.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

PROFESSOR GUTHRIE

OBSTETRICS

This course embraces a thorough training in diagnosis of pregnancy, the physiology and pathology of pregnancy, diagnosis of presentation and positions, the management of labor, normal and abnormal, measurements of the pelvis, and a complete course upon surgical obstetrics, taught by wet specimen, upon the manikin, and upon patients when practicable.

The class is divided into sections for study and drill in diagnosis and in operative obstetrics.

1. DIDACTIC LECTURES—Two each week during the session upon Obstetrics, including a discussion of physiology and pathology, management of gestation, management of labor, normal and abnormal labor, management of puerperium, dystocia, and care of the new-born child. Junior year.

2. OPERATIVE OBSTETRICS—Course of six lectures, illustrating by both dried and wet specimens. Senior year.

3. COURSE UPON THE MANIKIN for diagnosis and demonstrating the use of forceps and other mechanical appliances and in obstetrical manipulation, equivalent to one hour each week during the session. Senior year.

GYNECOLOGY

The instruction in this subject for both junior and senior year classes combines didactic lectures, recitations, and demonstrations, with clinical demonstrations in both major and minor operative Gynecology. The following courses are given:

4. BEDSIDE CLINIC—A ward clinic will be held every week, where each student will have an opportunity to examine the patient and to observe both the post-operative condition and the treatment of all operative cases. The merits of each case are discussed and indications for after treatment carefully

studied. Students will be drilled in the matter of special diet and hygiene. Senior year.

5. WARD CLASS in diagnosis will be given each week throughout the year, at which sections will be instructed in the matter of securing good histories and drilled in taking the same. They will be taught how to conduct an examination and from history and physical condition to form correct diagnoses. Senior year.

6. DIDACTIC LECTURES—The first semester is occupied with lectures on the general scope of the subject, methods of examination, etiology, pathology, and general management of gynecological patients. The rest of the course will be devoted to a discussion of special conditions, operative and gynecological technique. Junior and senior years. One lecture a week.

7. CLINIC will be held each week, demonstrating methods of examination and diagnosis, illustrating both major and minor gynecological operations. A constant effort will be made to instruct in modern methods and improved technique. Junior and senior years.

8. GYNECOLOGICAL LANDMARKS—One hour each week during the first semester is devoted to a study of landmarks and cultivation of touch in palpating pelvic viscera.

DEPARTMENT OF OPHTHALMOLOGY

PROFESSOR DALBEY

The lectures are delivered and the clinic is held in the University Hospital.

1. Lectures and recitations on the physiology and anatomy of the eye and orbit, diseases of conjunctiva, lachrymal apparatus, and external muscles. One hour each week, first semester, senior year.

2. Lectures and recitations on the internal diseases of the eye, including the diseases of the retina, choroid, ciliary body, iris, optic nerve, etc., and on refraction. One hour each week, second semester, senior year.

3. Clinical lectures, demonstrations, and operations on the eye. In this work the class will be divided into sections of eight so that they may be able to see better the minutiæ of the operations on the eye. The material will be so arranged that each section will see, at least once, all the ordinary operations. Two hours a week, senior year.

DEPARTMENT OF OTOLOGY, RHINOLOGY, AND LARYNGOLOGY

PROFESSOR DEAN

The Department of Otology occupies the ground floor of the West Wing of the Hospital. The suite of rooms comprises the waiting room, a clinical room, a combined operating and treatment room, a recovery room, and a clinical laboratory.

The clinical room is supplied with enough lights on movable brackets so that each student may have one for his individual work. The treatment and operating room is well furnished with modern instruments for operations for and treatment of the diseases of the ear, nose, and throat. Connected with the clinical room is a clinical laboratory, in which are microscopical specimens of all the diseases of the ear, nose, and throat. It has an abundant supply of anatomical specimens showing the normal and the anomalous conditions of the nose and its sinuses, and of the ear and the mastoid process. These preparations are arranged so that the student may take them and study them at his leisure.

The laboratory is equipped with a microtome and the ordinary apparatus for microscopical work. All pathological growths removed in the clinic during the year are prepared here and the student is given opportunities of seeing the microscopical pathology of all cases which he has examined in the clinical room.

The instruction is given by lectures, recitations, and personal work done in the clinic. In the University Clinic enough material is obtained so that during the clinic hours each student has his own patient for examination and diagnosis. During the year the student has abundant opportunities for seeing all the ordinary operations upon the ear, nose, and throat. Three clinics a week are held at the University Hospital in this department in order that the class may do work in sections.

1. METHODS OF EXAMINATION AND DIAGNOSIS OF DISEASES OF THE EAR, NOSE, AND THROAT—The anatomy and physiology of the diseases of the nose and the nasal pharynx. Lectures and recitations. First semester, two hours a week.

2. THE ANATOMY AND PHYSIOLOGY AND DISEASES OF THE LARYNX. Lectures and recitations. Senior year, second semester, first term, two hours a week.

3. ANATOMY AND PHYSIOLOGY AND DISEASES OF THE EAR—Lectures and recitations. Senior year, second semester, second term, two hours a week.

4. PRACTICAL CLINICAL INSTRUCTION AT THE UNIVERSITY HOSPITAL in diagnosis of the diseases of the nose, throat, and ear, in methods of examination, in the practical use of instruments and in the application of remedies, operative and medical; in sections of not more than fifteen each. Senior year, first and second semester, two hours each week.

5. CLINICAL, MICROSCOPICAL, AND PRACTICAL ANATOMY OF THE EAR, NOSE, AND THROAT—Four hours a week for one semester. Course optional. Number limited to two.

MEDICAL JURISPRUDENCE

The course is opened with the consideration of the nature and purposes of law, then of laws affecting the practice of medicine. Malpractice is discussed and the liability to the physician by the patient and others, including that of municipalities for the treatment of patients. The questions of legal insanity, expert evidence and expert witnesses, hypothetical cases, causes of death, and post mortem examinations follow, and, in conclusion, the subject of state and local boards of health, quarantine regulations, etc. Senior year, first semester, twelve hours. Judge WADE.

INSANITY

This subject is discussed as concisely as possible with the special needs of the general practitioner constantly in view, and the material that appears at the clinic from time to time during the term is utilized in illustration. Senior year, second semester. Twelve lectures, with clinical instruction at the Hospital for the Insane at Independence. Dr. HILL.

HYGIENE

Instruction in Hygiene, in addition to that given in the courses of Pathology, Bacteriology, and Physiological Chemistry, consists of a course of lectures and recitations. In this course will be considered the predisposing factors of disease; the principles on which immunity depends; the relation of ventilation, water-supply, food, and the disposal of waste to

the public health; climatology, heredity, vital statistics and other subjects. A syllabus of the lectures will be available which will contain references to the literature of each subject. Junior year, first semester, twenty-six hours. Dr. CLARKE.

DERMATOLOGY

The instruction in this branch is largely clinical, students of the class being assigned patients for examination, diagnosis, and treatment. Didactic lectures and recitations are given on the rarer forms of disease. Senior year. Throughout the session, one hour each week. Dr. KESSLER.

DENTISTRY

The lectures on this subject comprise such principles of dental pathology and therapeutics as are essential to the practitioner of medicine. Instruction is given in the application of medicinal appliances for the correction of cleft palate, also in methods of applying retention in fractures of maxilla. Junior year, second semester, five hours. Dr. BREENE.

TEXT-BOOKS AND BOOKS OF REFERENCE

The following are recommended by the faculty:

Medical Dictionary—Gould, Duane, Dunglison.

Anatomy—Gray, Quain, Gerrish, Morris, Treve's Surgical Applied Anatomy.

Dissectors—Holden, Heath, Ellis.

Comparative Anatomy—Wiedersheim, Jeffery Bell, Howell.

Physiology—American Text-Book, Kirk, Stewart, Stirling.

General Chemistry—Remsen, Bartley, Roscoe and Schorlemmer.

Analytical Chemistry—Rockwood.

Physiological Chemistry—Rockwood, Simon, Vaughan and Novy.

Urine Analysis—Purdy, Ogden.

Toxicology—Wormley, Taylor.

Surgery—Park, American Text-Book of Surgery, DaCosta, Stimson on Fractures and Dislocations, Wharton's Minor Surgery and Bandaging, Warren's Surgical Pathology, Senn on Tumors.

Pathology—American Text-Book of Pathology, Stengel, Ziegler, Coplin, Delafield and Prudden, Green.

Pathological Technique—Malloy and Wright.

Clinical Diagnosis—Simon, von Jaksch.

Haematology—Ewing or Cabot.

Bacteriology—Abbott, McFarland, Park, Crookshank, Sternberg.

Practice of Medicine—Osler, Struempel, Tyson, Anders, Thompson, Eichorst, American Text-Book of Theory and Practice of Medicine, Albutt.

Medical Diagnosis—Vierordt, Musser, DaCosta, Flint.

Obstetrics—American Text-Book of Obstetrics, Lusk, Davis, Parvin, Leishman, Playfair, King, Dorland.

Obstetric Surgery—Grandin and Jarmin.

Embryology—Minot, Manton.

Gynecology—Skene, Thomas and Munde, Garrigues, American Text-Book, Pozzi, Davenport, May's Manual, Clinical Gynecology, Keating and Coe, Dudley.

Materia Medica—White and Wilcox, Potter, Cushny.

Theraeuptics—Hare, Wood, Sollmann.

Diseases of Children—Holt, Starr's American Text-Book, J. L. Smith, Goodhart.

Medical Jurisprudence—McClellan's Civil Malpractice, Wharton and Stille, Beck, Elwell.

Histology—Stoehr, Piersol, Schafer, Stirling.

Ophthalmology—Fuchs, Juler, Noyes, Nettleship on the Eye.

Otology and Rhino-Laryngology—Deuch, Bosworth, Kyle, Price-Brown, Buck, McBride.

Insanity—Compendium of Insanity, Chapin; Mental Diseases, Berkley; Nervous and Mental Diseases, Church and Peterson.

Dermatology—Jackson, Hardaway, Shoemaker.

Hygiene—Notter and Firth, Abbott.

Dietetics—Thompson, Pavy.

Text-Books and books of reference can be obtained at an average cost per volume of from $2.00 to $5.00, or $15.00 to $20.00 per year.

The thorough study of a single text-book in each department is of far greater advantage to the student during his college course than the cursory reading of several. It is therefore advised that a single work in each branch be chosen, using any of the others for reference. The first one of each of the above lists is preferred.

UNIVERSITY HOSPITAL

The Twenty-sixth General Assembly levied a tax for the erection of new buildings for the University, and by the action of the Board of Regents the first year's tax, somewhat more than fifty thousand dollars, has been devoted to the building and equipment of a hospital which was opened for the reception of patients in 1898. The University Hospital is in all respects modern and without a superior in the West. With an administration building thoroughly furnished, with large and commodious wards, as well as private rooms, with a clinical amphitheater that will comfortably seat two hundred or more, and with separate surgical, gynecological, medical, ophthalmological, and laryngological operating rooms, together with a well supplied Free Dispensary, open throughout the year, but little is left to be desired.

CLINICS

The Clinics have been well and abundantly supplied with material. The patronage of the Hospital, which is open for the reception of patients during the year, is such that a variety of cases is presented for operation and treatment.

Every case is fully utilized as a means of instruction by a system of examination in which advanced students are required to diagnosticate disease and suggest treatment before the class, subject to the correction of the clinical teacher. Members of the senior class examine patients in the hospital wards before the medical and surgical clinics. They also visit the wards under the direction of a member of the hospital staff, where opportunity is given to observe dressings, to note the progress of cases, and to make such examinations as may be consistent with the comfort and safety of patients.

CLINICAL PATIENTS

Medical cases should be referred to Professor L. W. Littig; surgical cases to Professor W. D. Middleton; gynecological cases to Professor J. R. Guthrie; eye cases to Professor J. W. Dalbey; ear, nose, and throat cases to Professor L. W. Dean; dermatological cases to Dr. J. B. Kessler.

RESIDENT PHYSICIANS

Appointments as Resident Physicians in state and other institutions are made each year from the graduates of the Col-

lege of Medicine. These are awarded to such of the applicants as the faculty judges best prepared for the positions, the successful candidates being allowed to select, in the order of their rank, from those which are available.

REQUIREMENTS FOR GRADUATION

1. The candidate must be twenty-one years of age.
2. He must be known to be of unexceptional moral character.
3. The time of study must include attendance upon at least four full courses of lectures, the last of which must be taken in this institution. The time occupied by each of the four courses of lectures shall not be less than twenty-six weeks, and no two of the four courses shall be within the same year. Each session after 1900–01 shall be at least 34 weeks in length.
4. The candidate must have satisfactorily completed at least four courses in Practical Anatomy.
5. The deportment during the term must have been unexceptional.
6. Attendance upon all lectures, clinics, and other instruction in the course must have been in accordance with the requirements of the College.
7. All members of the freshman class will be examined in General Chemistry, Histology, Physiology, and Anatomy at the end of that year. The examination in General Chemistry and Histology will be final should the student show the required proficiency.
8. Members of the sophomore class at the end of that year must pass satisfactory examinations in Anatomy, Physiology, Physiological Chemistry, General Pathology, Materia Medica, and Pharmacy.
9. Members of the junior class will be given a final examination at the end of the year in Therapeutics, Obstetrics, Hygiene, Special Pathology, and Bacteriology.

In the case of failure to pass any of these examinations, the student must be re-examined before registration at the opening of the next session. If he fail in this second examination, he will be allowed to present himself for re-examination only after attendance upon another course of lectures. A failure in more than two branches at this September examination will debar the student from admission to a higher class.

Students of the senior class who are candidates for the degree of Doctor of Medicine must, before May first, present to the Secretary of the Faculty certificates of legal age. During the last week of the term, having complied with the other requirements, they must pass a satisfactory examination in Practice of Medicine, Surgery, Ophthalmology, Gynecology, Pædiatrics, Dermatology, Otology, and Rhino-Laryngology, and in any other subjects taught, if so directed by the faculty at the beginning of the term.

Class standing and recitation marks, together with demonstrators' reports and final examinations, will be taken into consideration when determining the candidate's fitness to receive the medical degree.

TUITION

The fee for tuition is $65.00 for each year, of which $40.00 must be paid at the time of registration, and the balance at the beginning of the second semester. All fees must be paid when due, to the Treasurer of the Board of Regents, Lovell Swisher, and students who do not pay them when due will be suspended from the College until payment has been made.

In the combined courses the fees are $25.00 for each year in the College of Liberal Arts, and $75.00 for each year in which the student carries work in the College of Medicine. Students entering the College of Medicine from other schools with advanced standing will pay $10.00 for dissecting material used in making up deficiencies in this branch. For students taking a partial course the fees are $10.00 per year for each branch except dissecting, where the fee is $15.00. For all honorably discharged soldiers who served in the Spanish-American War, and who are taking a full course in this college there is an annual remission of $25.00 from the above fees.

There are no extra fees whatever, but for each laboratory course in chemistry, also for that in practical pharmacy, there is required a deposit of $3.00 to cover breakage and to insure the return of all keys at the close of the session. This sum (breakage, if any, deducted) is returned to the student on presentation of the certificate of the professor in charge of the laboratory in question.

The above statement is now in effect, and will be understood to apply to all students in the College, entirely irrespective of the date of matriculation.

Alumni of the College will be admitted to lectures and clinics free of charge, but will pay the usual laboratory fees. Graduates of other medical colleges which are recognized by this College, will, when not candidates for a degree, be admitted to full lecture privileges upon paying the matriculation fee of $5.00 and a fee of $10.00 with the usual laboratory fees.

Seats will be assigned by classes in the order of registration at the University.

A certificate of attendance will be issued to each student at the close of the session.

Students upon arrival will apply for all needed information to the Secretary, Dr. E. W. Rockwood.

NECESSARY YEARLY EXPENSES

Tuition fee, which includes all University charges except laboratory breakage	$ 65 to $ 65
Breakage	1 to 2
Room rent, 9 months	18 to 72
Board, 36 weeks	72 to 108
Fuel and light	6 to 15
Books	12 to 20
Total	$164 to $282

Graduates of this College are requested to acquaint the Secretary of the Faculty immediately with their postoffice addresses and to inform him promptly of any change of residence.

For any further information address Dr. E. W. Rockwood, Secretary of the Medical Faculty, Iowa City, Iowa.

The following is a specimen program:

FRESHMAN YEAR

A. M.	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8	Physiology	Histology Recitation	Physiology Recitation		Histology	Anatomy
9	Chemistry	Phy iology	Chemistry	Histology	Chemistry	
10	Anatomy	Anatomy	10 to 12 *Chemical Laboratory Sec. II.*	10 to 12 *Chemical Laboratory Sec. I.*	Anatomy	10 to 12 *Histological Lab. Sec. II*
11	Histology				Pharmacy 2nd Sem.	10 to 12 *Chemical Lab. Sec. I.*
P. M.						
1	1 to 3 *Histological Laboratory Sec. I.*	1 to 3 *Histological Laboratory Sec. II.*	1 to 3 *Histological Laboratory Sec. I.*	1 to 3 *Histological Laboratory Sec. II.*	1 to 3 *Histological Laboratory Sec. I.*	
2		1 to 3 *Chemical Laboratory Sec. I.*			1 to 3 *Chemical Laboratory Sec. II.*	
3	3:15 to 5:15 *Chemical Laboratory Sec. II.*	3:15 to 5:45 *Anatomical Laboratory*	3:15 to 5:45 *Anatomical Laboratory*	3:15 to 5:45 *Anatomical Laboratory*	3:15 to 5:45 *Anatomical Laboratory*	

SOPHOMORE YEAR

A. M.	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8	8 to 10 *Physiolog'c'l Laboratory*	Anatomy			Pathology Recitation	8 to 12 *Physiolog'c'l Laboratory*
9		Physiological Chemistry	Physiology	Physiology	Pharmacy 1st Sem.	
10	Physiology	Gynecological Clinic	Anatomy	Anatomy	Physiological Chemistry	
11			Materia Medica	General Pathology	Anatomy	
P. M. 1	1 to 3:15 *Physiolog'c'l Chemistry Lab. Sec. I*	1 to 3 *Pathologic'l Laboratory* Jan to June	1 to 3:15 *Physiolog'c'l Chemistry Lab. Sec. II*	1:30 to 3:30 *Surgical Clinic*	1:30 to 3 *Medical Clinic*	
2	1 to 3 *Physiolog'c'l Laboratory* Jan to June	1 to 3 *Physiolog'c'l Laboratory* Sept to Jan	1 to 3 *Pathologic'l Lab. Sec. I* Jan to June			
3	3:15 to 5:45 *Anatomical Laboratory*	3:15 to 5:45 *Anatomical Laboratory*	3:15 to 5:45 *Anatomical Laboratory*	3:30 to 5:30 *Physiolog'c'l Laboratory*	3:15 to 5:45 *Anatomical Laboratory*	

JUNIOR YEAR

A. M.	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8	Practice	Practice	Practice	Surgery	Surgery Last 3 Terms	Practice
9	Surg. Tech. 1st Sem. Surg. Anat. 2nd Sem.	Gyne-cology	Therapeu-tics	Pathology	Pathology	Physiology 2nd and 3rd Terms
10		Gyneco-logical Clinic	Practice Recitation	Surgery	10 to 12 *Patholog. & Bact. Lab. Sec. II*	Minor Surgery 1st Term
11	10 to 11 Pathology Recitation		Toxicology			
P. M. 1	1 to 3 *Patholog. & Bact. Lab. Sec. I*	1 to 3 *Bact. Lab. Sec. II* Until Jan'y	1 to 3 *Bact. Lab. Sec. I* Until Jan'y	1:30 to 4 *Surgical Clinic*	1:30 to 3 *Medical Clinic*	
2			2 to 3 *Hygiene* 2nd Sem.			
3	Physical Diagnosis	Obstetrics	Therapeu-tics Recitation			
4		4 to 5 *Obstetrics*	Hygiene 2nd Sem.			

SENIOR YEAR

A. M.	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8	Practice	Practice	Practice	Surgery	Surgery Tumors 1st Term	Practice
9	Practice Recitation	Gyne-cology	Ward Class	Practice Recitation	Ear, Nose and Throat	Ward Class
10	Ward Class	Gynecolog-ical Clinic	Paedia-trics 2nd Term	Surgery	10 to 12 *Operative Surgery*	10 to 12 *Clinical Microscopy*
11			Ophthal-mology	Surgery Recitation		
P. M. 1	Derma-tology	1 to 2 *Operative Obstetrics & Manikin*	1:30 to 3:30 *Eye Clinic*	1:30 to 4 *Surgical Clinic*	1:30 to 3 *Med. Clinic*	1 to 2:30 *Ear, Nose, and Throat Clinic*
2		1 to 2:30 *Ear, Nose, and Throat Clinic*				
3					Practice Recitation after Holidays	
4		5 to 6 *Bedside Clinic Gynecology*		4:30 to 5:30 *Ear, Nose, and Throat Clinic*		

OFFICERS OF THE HOSPITAL

LAWRENCE W. LITTIG, M. D.,
Director.

CHARLES H. CRETZMEYER, M. D.,
Resident Physician.

SUSAN G. PARRISH,
Principal of the Training School.

MARY LOUISE REHERD,
Matron.

THE UNIVERSITY HOSPITAL

There is connected with the hospital of the College of Medicine of the University a School for Nurses which offers a three years' course to women who desire to enter the profession of nursing. Lectures will be delivered during the year by members of the Medical Faculty.

The following is the course of lectures:

FIRST YEAR

Ethics of Nursing - - - - - - - DR. MIDDLETON
October 3

General Observation and Recording of Symptoms - DR. LITTIG
October 10, 17

Bacteriology - - - - - - - DR. BIERRING
October 22, 29, November 5, 12

Hygiene - - - - - - - - - DR. CLARKE
October 24, 31, November 7, 14

Materia Medica - - - - - - - DR. CHASE
November 21, 28, December 5, 12, 19

Obstetrics - - - - - - - - DR. GUTHRIE
November 20, 27, December 4, 11, 18

Gynecology - - - - - - - DR. GUTHRIE
January 8, 15, 22, 29, February 5

Surgery - - - - - - - - DR. MIDDLETON
January 9, 16, 23, 30, February 6

Infectious Diseases - - - - - - DR. BIERRING
February 25, March 4, 11, 18, 25

Food and Dietetics - - - - - - DR. ROCKWOOD
March 20, 27, April 3, 10

Nursing in Internal Diseases - - - - - DR. LITTIG
April 1, 8, 15, 18, 22, 25, 29, May 6

SECOND YEAR

Ethics of Nursing - - - - - - DR. MIDDLETON
October 3

General Observation and Recording of Symptoms - DR. LITTIG
October 10, 17

Bacteriology - - - - - - - - - DR. BIERRING
October 22, 29, November 5, 12

Hygiene - - - - - - - - - - DR. CLARKE
October 24, 31, November 7, 14

Materia Medica - - - - - - - - - DR. CHASE
November 21, 28, December 5, 12, 19

Surgery - - - - - - - - - - DR. MIDDLETON
January 9, 16, 23, 30, February 6

Infectious Diseases - - - - - - - - DR. BIERRING
February 25, March 4, 11, 18, 25

The Eye - - - - - - - - - - DR. DALBEY
February 13, 20

Ear, Nose, and Throat - - - - - - - DR. DEAN
February 15, 22

Children - - - - - - - - - - DR. WHITEIS
February 27, March 6, 13

Food and Dietetics - - - - - - - - DR. ROCKWOOD
March 20, 27, April 3, 10

Nursing in Internal Diseases - - - - - - DR. LITTIG
April 1, 8, 15, 18, 22, 25, 29, May 6

THIRD YEAR

Ethics of Nursing - - - - - - - - DR. MIDDLETON
October 3

General Observation and Recording of Symptoms - - DR. LITTIG
October 10, 17

Bacteriology - - - - - - - - - DR. BIERRING
October 22, 29, November 5, 12

Materia Medica - - - - - - - - - DR. CHASE
November 21, 28, December 5, 12, 18

Obstetrics - - - - - - - - - - DR. GUTHRIE
November 20, 28, December 4, 11, 18

Gynecology - - - - - - - - - DR. GUTHRIE
January 8, 15, 22, 29, February 5

The Eye - - - - - - - - - - DR. DALBEY
February 13, 20

Ear, Nose, and Throat - - - - - - - DR. DEAN
February 15, 22

Children - - - - - - - - - - DR. WHITEIS
February 27, March 6, 13

Physiology - - - - - - - - - DR. MCCLINTOCK
February 26, March 5, 12, 19, 26

Anatomy - - - - - - - - - - DR. HARRIMAN
April 12, 19, 26, May 3, 10

The Principal will lecture upon Hospital Administration and Ward Management and will give instruction in massage. There will be a complete course in invalid cookery. The lectures will be supplemented by recitations as well as by practical work in the wards and operating room. A diploma will be awarded at the end of the course. Candidates may be admitted when vacancies occur.

For further information application should be made to the Training School for Nurses, University Hospital, Iowa City, Iowa.

NURSES

SENIORS

WILHELMINA BLIM, EDITH E. WHITE,
LETTA MOORE, RENA WHITE.

INTERMEDIATES

BERNICE MARTIN, ISABEL SOPER,
FREDA SCHLEY, HELEN TURK.

JUNIORS

JENNIE JOHNSON, CANDACE SOMES,
ALTAH WILANTT.

PROBATIONERS

ADELAIDE C. DAVIS, NANCY LESEUR.

COLLEGE OF HOMŒOPATHIC MEDICINE

COLLEGE OF HOMŒOPATHIC MEDICINE

FACULTY AND INSTRUCTORS

GEORGE E. MACLEAN, PH. D., LL. D.,
President of the University.

JAMES G. GILCHRIST, M. A., M. D.,
Professor of Surgery and Surgical Gynecology. Secretary of the Faculty. Director of the Hospital.

CHARLES H. COGSWELL, M. D.,
Professor of Obstetrics and Diseases of Women.

FRANK J. NEWBERRY, M. S., M. D., O. et A. Chir.,
Professor of Ophthalmology, Otology, and Physical Diagnosis and Diseases of the Respiratory Tract.

GEORGE ROYAL, M. D.,
Professor of Materia Medica and Therapeutics. Dean of the Faculty.

FREDERICK BECKER, M. D.,
Professor of Theory and Practice, and Clinical Medicine.

Assistant to the Chair of Obstetrics.

LEORA JOHNSON, M. D.,
Clinical Assistant to the Chair of Surgery.

RAYMOND E. PECK, M. D.,
Assistant to the Chair of Surgery.

BENJAMIN R. JOHNSTON, M. D.,
Assistant to the Chair of Theory and Practice, and Lecturer on Pædology.

WILLIAM L. BYWATER, M. D.,
Assistant to the Chair of Ophthalmology, Otology, and Physical Diagnosis and Diseases of the Respiratory Tract, and Lecturer on Diseases of Women.

LINTON W. STRUBLE, M. D.,
Assistant to the Chair of Materia Medica.

ELVA M. DUNHAM,
Superintendent of the Hospital, and of the Training School for Nurses.

BURT C. FULLMER,

PETER A. WILD,
Hospital Internes.

JOHN W. HARRIMAN, M. D.,
Professor of Anatomy.

ELBERT W. ROCKWOOD, M. A., M. D.,
Professor of Chemistry and Toxicology.

WALTER L. BIERRING, M. D.,
Professor of Pathology.

WILLIAM R. WHITEIS, M. S., M. D.,
Professor of Histology.

LEE WALLACE DEAN, M. S., M. D.,
Professor of Physiology.

JOHN THOMAS MCCLINTOCK, B. A., M. D.,
Demonstrator of Anatomy.

FRANK N. BRINK, B. Ph.,
CHAS. M. WERTZ, B. S.,
CHAS. W. JOHNSON, B. S., Ph. C.,
Demonstrators of Chemistry.

GERSHOM H. HILL, B. A., M. D.,
Lecturer on Insanity.

MARTIN J. WADE, LL. B.,
Lecturer on Medical Jurisprudence.

COLLEGE OF HOMŒOPATHIC MEDICINE

The twenty-sixth annual course of instruction will open on Thursday, September 25, 1902, at 8 o'clock a. m. In the afternoon of the same day, at 4 o'clock, the University convocation will be held, which constitutes the formal opening for all the Colleges.

The year is divided into two semesters, each divided into two terms of nine weeks each. The commencement exercises and conferring of degrees will occur at 10 o'clock a. m., on June 17, 1903.

The course of study extends over four years, of nine months each. Men and women are admitted on equal terms. The large and well equipped laboratories in the University, the hospital facilities afforded by the union of the College and hospital under one roof, and the opportunity for collateral study in any department of literature or science, furnish facilities for securing an education in medicine not to be surpassed. Furthermore, a diploma from a university of the first rank has a value that does not attach to that of any private school.

SPECIAL ADVANTAGES OF THIS COLLEGE

1st. In equipment and instruction our laboratories are better than those of any homœopathic college and equal to those of any college in the United States.

2nd. In the libraries of the University and College are over 60,000 volumes at the command of all matriculates.

3rd. The museums of the University afford an education in themselves.

4th. The association of our students with the other colleges of the University broadens the intellectual horizon.

5th. The people of Iowa are partial to Iowa University graduates. Every year the number of calls for desirable positions sent the faculty for our graduates is more than double the number of graduates.

6th. The cost of living in Iowa City is much less than in larger cities, while the social advantages are much greater.

7th. The College being a part of the State University, its diploma will never depreciate in value.

8th. The number of students compared with the number of instructors is not so large as to prevent each student from receiving individual attention, not only in the laboratories, but in the quizzes and sub-clinics.

9th. The last and most important advantage lies in our combined courses. The people at the present time require a broad and liberal education of the medical profession. We are prepared to meet this demand. We are prepared to take the graduates of our high schools and after six or seven years of careful and systematic training return them to the public equipped as demanded.

The faculty most urgently recommends the courses leading to the degrees of B. Ph. and M. D., or B. S. and M. D. to all who contemplate entering the medical profession. The degrees of B. A. and M. D. may also be obtained in the combined course.

REQUIREMENTS FOR ADMISSION

1. Each applicant for admission must present to the Secretary of the Faculty a satisfactory certificate of good moral character, signed by two physicians of good standing in the state from which he comes.

2. The following classes of applicants may be admitted without examination:

a. Graduates or matriculates of reputable colleges who present diplomas or certificates of honorable dismissal from such colleges, together with a special certificate that they have studied Latin at least one year.

b. Graduates of normal schools established by state authority, who present diplomas or certificates of graduation, together with a special certificate that they have studied Latin at least one year.

c. Graduates of accredited or other approved secondary schools who present twenty-four preparatory credits, including at least one year of Latin. One preparatory credit is given for the successful study of one secondary school subject during a term of *eighteen weeks* with *five* recitations or exercises per week, or an equivalent. These preparatory credits must be

properly certified by the Superintendent or the principal of the school from which the applicant comes, on the blank form which is inserted in this announcement, or on a similar form which may be obtained on application to the President of the University or the Secretary of the Faculty of the College of Homœopathic Medicine.

3. Applicants who present *twenty-two* preparatory credits properly certified as indicated under 2 c may be admitted without examination, *on condition that they complete their preparation within one year from the date of their admission.* No applicant whose deficiencies exceed *two* preparatory credits will be admitted as a candidate for graduation.

4. In September, 1902, applicants who do not present credentials as described above will be admitted without conditions only upon passing examinations in the following preparatory subjects:

a.	Latin (one year)	2 preparatory credits
b.	English	2 preparatory credits
c.	United States History	1 preparatory credit
d.	Arithmetic	1 preparatory credit
e.	Algebra, through quadratics	3 preparatory credits
f.	Plane and Solid Geometry	3 preparatory credits
g.	Physics (one year)	2 preparatory credits
h.	Botany, or some other science	1 preparatory credit

5. The applicant who passes examinations in all of the subjects enumerated under 4, except such as stand for a total of *two* preparatory credits, may be admitted *on the condition stated in paragraph* 3.

6. Applicants who present proper certificates covering all or any part of the preparatory studies designated under 4 for examination, may be admitted upon passing examinations in enough *other* preparatory studies to bring the number of their preparatory credits up to at least *twenty-two*, *on the condition stated in paragraph* 3.

7. All applicants who are admitted without Latin will be required to take the one-year course in Medical Latin specially provided by the University, the fee being $5.00 for the course. This course is not a part of the regular course in Homœopathic medicine, but is offered as a convenience for such applicants for admission as have not studied Latin. The class in this course will be organized on Monday, September 29, 1902. Students

who take this course are required to pay the fee at the time when they pay the first installment of their regular tuition.

8. Students who enter with conditions in *other* preparatory studies than Latin must pass the regular entrance examinations in these studies in September, 1903.

9. Students entering from other colleges of medicine with advanced standing must present credentials for preparatory work or be examined as stated above.

10. It is urged that any one expecting to enter the College of Homœopathic Medicine next September send all certificates of preparatory work to the University Examiner *as early in the summer as possible, and certainly before September* 1. If the credentials are satisfactory a card of admission will be sent to the applicant at once. Upon arriving in the city he should present this card to the Dean, or to the Secretary of the Faculty, for signature.

ENTRANCE EXAMINATIONS

Any person expecting to enter the College of Homœopathic Medicine in September, 1902, should be careful to learn before the opening of the University just what entrance examinations he will be required to pass. He can learn this by addressing the President of the University, the Secretary of the Faculty of the College of Homœopathic Medicine, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given below.* He should present himself at once at the office of the University Examiner, who will give him all necessary directions.

For *each separate* examination given at any other time than that announced in the following programme, a fee of *two dollars* will be charged by the University.

PROGRAMME OF ENTRANCE EXAMINATIONS

MONDAY, SEPTEMBER 22, TO WEDNESDAY, SEPTEMBER 24, 1902

Latin,		2 credits,	Monday,	3:30 p. m.
English and Eng. Grammar	2 credits	Tuesday,	11:00 a. m. and	4:30 p. m.
		Wed.,	11:00 a. m. and	4:30 p. m.
Arithmetic,		1 credit,	Tuesday,	8:00 a. m.

United States History	1 credit,	Tuesday, 1:30 p. m.
Algebra,	3 credits,	Wednesday, 8:00 a. m.
Plane and Solid Geometry,	3 credits,	Wednesday, 9:30 a. m.
Physics,	2 credits,	Wednesday, 1:30 p. m.
Botany,	1 credits	Wednesday, 3:00 p. m.

All students having deficiencies in their medical work will appear for examination according to the following schedule:

WEDNESDAY, SEPTEMBER 24.

Physiology,	10:00 a. m.
Pathology,	10:00 a. m.
Anatomy,	11:00 a. m.
Materia Medica,	3:00 p. m.
Chemistry,	4:00 p. m.

COMBINED COURSES

Arrangements have been made with the faculty of the College of Liberal Arts by which it will be possible for a student to receive credit in one college for work done in the other, thereby obtaining a degree in each in a shorter time than if the two courses were taken independently. These combined courses are especially recommended to all students who intend to enter the profession of medicine.

REQUIREMENTS FOR ADMISSION TO THE COMBINED COURSES IN ARTS AND MEDICINE

1.	Latin, including prose composition,	8 preparatory credits
2.	English and Literature,	*7 preparatory credits
3.	History (may include Civics),	3 preparatory credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 preparatory credits
5.	Plane and Solid Geometry,	3 preparatory credits
6.	Electives (additional accreditable work in foreign language, English, History, or Science),	4 preparatory credits
	Total,	28

*Since notice of this additional requirement in English and Literature was not given to accredited high schools until late in the autumn of 1901, not more than four preparatory credits will be required in September, 1902.

Another excellent course leads to the degree of B. S. and M. D. This course may also be completed in six years. The admission requirements are as given below:

1.	Some one foreign language (Latin preferred, but German or French accepted),	4 preparatory credits
2.	English and Literature,	*7 preparatory credits
3.	History (may include Civics),	3 preparatory credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 preparatory credits
5.	Plane and Solid Geometry,	3 preparatory credits
6.	Electives (additional accreditable work in foreign language, English, History, or Science),	8 preparatory credits
	Total,	28

ARRANGEMENT OF THE COMBINED COURSE LEADING TO THE DEGREES OF B. S. AND M. D.

First Year	*Second Year*
German—5	German—3
Mathematics—5	English—2
Drawing—3	Physics—5
English—2	Zoology—5
Military Drill—3	Animal Physiology—2
	Military Drill—3

Third Year	*Fourth Year*
Botany—5	Medical work exclusively
Chemistry—5	
Animal Morphology—5	
Military Drill—3	

Fifth Year	*Sixth Year*
Medical work exclusively	Medical work exclusively

*Since notice of this additional requirement in English and Literature was not given to accredited high schools until late in the autumn of 1901, not more than four preparatory credits will be required in September, 1902.

Seventh Year

French, 10 semester hours.
Elective, in College of Liberal Arts, 10 semester hours.

It is possible for students of marked ability to complete this course in six years by taking one year's work in French and one year's work in an elective in the College of Liberal Arts, in addition to the medical work, in the fifth and sixth years of the combined course or wherever it is practicable. Both degrees will be conferred at the end of the sixth year if the work has been completed, and to obtain them it must be taken as here outlined, no substitutions being permitted.

COMBINED COURSE LEADING TO THE DEGREES OF B. PH. AND M. D., OR B. A. AND M. D.

By selection of the above scientific branches as electives in the courses leading to the degrees of B. Ph. or B. A. in the College of Liberal Arts it will be possible to obtain either of these degrees with that of M. D. in seven years. For the details of these courses the announcement of that College should be consulted.

PROMOTION

Admission to higher classes is secured only by examination, oral, written, or both, combined with the quiz-record and class standing. A failure to pass in two or more studies will stop advancement until the conditions are satisfied. A failure in one study will not stop advancement, but the student must pass a satisfactory examination in that study before the close of the year to which he is promoted. Students presenting credentials from colleges of homœopathic medicine in good standing in the American Institute of Homœopathy, may be admitted to the classes to which such credentials would admit them in the College from which they are issued. The faculty reserves the right to determine the class which any student shall enter, in the case of applicants who have had one or more years in other medical schools.

Graduates in science or arts, also those with degrees in pharmacy or dentistry, from accredited schools, under the requirements of the State Board of Medical Examiners, may be grant-

ed advanced standing equal to one year's credit, on a schedule of studies to be determined in each case.

Graduates of non-homœopathic medical colleges may be admitted as graduate students, as follows: If an *ad eundem* degree is sought they must matriculate in the University, pay the regular fee, and pass an examination in the therapeutics of the branches taught in this College. If a degree is not sought, a matriculation fee is to be paid, and such laboratory expenses as may be necessary, together with a lecture fee, if a full course is taken.

Alumni of this school will be admitted to all lectures and clinics free of charge, but if regular attendants must be registered as graduate students.

By order of the Board of Regents no student will be enrolled until all necessary fees have been paid.

OUTLINE OF THE PLAN OF INSTRUCTION

DEPARTMENT OF ANATOMY

PROFESSOR HARRIMAN; DR. MULLIN, MR. TAYLOR, MR. HOLMAN

Anatomy is taught by means of lectures, conferences, recitations, and demonstrations, and by practical work in the laboratories.

Lectures are illustrated by charts, models, blackboard figures, wet and dry specimens, and recent dissections of the human body. A complete assortment of disarticulated human bones is loaned to each student at the beginning of the year. The laboratory of practical anatomy occupies the basement of the Medical Building. Recent legislative enactment provides ample material for dissection.

1. OSTEOLOGY—A course in the anatomy of the human skeleton by means of lectures, recitations, and demonstrations. Four hours each week during first semester, freshman year. Professor HARRIMAN.

2. ARTHROLOGY, MYOLOGY, AND ANGIOLOGY—A course in the anatomy of joints, muscles, arteries, veins, and lymphatics, by lectures, recitations, and demonstrations upon the dissected human body. Four hours each week during first term of second semester, freshman year. Professor HARRIMAN.

3. SPLANCHNOLOGY—A course in the anatomy of the viscera and allied structures, by means of lectures, recitations, and demonstrations upon dissected bodies and wet specimens. Four hours each week during second term of second semester, freshman year. Professor HARRIMAN.

4. PRACTICAL ANATOMY—A course in the dissection of the human body. Ten hours each week during first term of second semester, freshman year, 3:30 to 5:30 p. m. daily, except Saturday. Dr. MULLIN, Mr. TAYLOR, Mr. HOLMAN.

5. OSTEOLOGY, ARTHROLOGY, MYOLOGY, AND ANGIOLOGY—A course consisting wholly of recitations upon subjects taken up during the freshman year. Four hours each week during

first term of first semester, sophomore year. Professor HARRIMAN.

6. PRACTICAL ANATOMY—A course in the dissection of the human body. Ten hours each week during second term of first semester, sophomore year, 3:30 to 5:30 p. m. daily, except Saturday. Dr. MULLIN, Mr. TAYLOR, Mr. HOLMAN.

7. SPLANCHNOLOGY—A lecture, demonstration, and recitation course in the anatomy of the viscera of the trunk and genito-urinary organs. Four hours each week during second term of first semester, sophomore year. Professor HARRIMAN.

8. NEUROLOGY AND ORGANS OF SPECIAL SENSE—A didactic, recitation, and conference course in the anatomy of the cerebro-spinal nervous system and organs pertaining to the special senses. Four hours each week during first term of second semester, sophomore year. Professor HARRIMAN.

9. APPLIED ANATOMY—A didactic, recitation, and demonstration course on the anatomy of important regions, with special reference to its application in medical and surgical diagnosis. Three hours each week during second term of second semester, sophomore year. Professor HARRIMAN.

10. SURGICAL ANATOMY—A lecture and recitation course on anatomy as applied to surgery. One hour each week during second semester, junior year. (Elective). Professor HARRIMAN.

DEPARTMENT OF PHYSIOLOGY

PROFESSOR DEAN; MR. BAILEY

The department of Physiology occupies a suite of rooms which includes a laboratory of experimental physiology and a room for animals. The latter is so arranged that frogs, turtles, rabbits, etc., can be kept throughout the whole year under suitable conditions. The room is supplied with separate compartments so that animals which are being experimented upon can be kept by themselves and observed.

The physiological laboratory is equipped with a full supply of apparatus, instruments, and chemicals for experimental purposes. The outfit includes artificial respiratory machines, myographs, chronographs, various kinds of electrical batteries, galvanometers, ergographs, kymographs, stethometers, sphygmographs, hemometers, hemoglobinometers, and cardiographs.

In addition the laboratory is well equipped with various artificial eyes, retinoscopes, ophthalmoscopes, models of the eye and ear, and instruments for determining the acuity of vision and hearing.

The course in Physiology is graded in the first and second years.

In the first year the students hear the lectures and attend recitations. The lectures are abundantly illustrated by charts and by experiments upon the living animal and upon the human subject. These lectures cover, as far as possible, the subject of biology and the proximate analysis of the human body, the fundamental laws governing life, a study of the fundamental physiological processes in the body, and a study of the nutritive media, the lymph, chyle, and blood, the elementary functions of the nervous system, and the physiology of reproduction, secretion, excretion, circulation, respiration, and the digestive and nutritive processes.

In the second year the work is made as practical as possible and includes lectures upon the nerves, muscles, and locomotor mechanism and the physiology of the central nervous system, of the eye, the ear, the nose, the throat, and the larynx. In addition to the lectures and recitations, the student does practical experimental work in the laboratory. For this the class is divided into sections, and each section works under the immediate supervision of the professor or instructor in Physiology. The physiological laboratory is open from nine o'clock in the morning until six o'clock in the evening, and, as the instructor is always present, the student can work as much time outside of his regular hours as he cares to. The student is made familiar with the various apparatus and physiological instruments and their uses and is also taught the methods of experimentation. He is supplied with living animals and upon these studies the physiological activity of the various parts and the organs under normal and abnormal conditions, being required to keep an accurate record of his experiments. Each student is required to complete at least fifty different physiological experiments.

In the third year a practical course on the physiology of the special senses and physiological optics is given. The laboratory is at all times open to students taking this course. In this course the student studies models of the eye and ear, and performs a number of experiments with the Kuehne artificial eye,

observing how it can be converted into a myopic, hyperopic, emmetropic, or astigmatic eye, and how the error of refraction of the eye may be corrected under these circumstances. He studies the muscle model of the eye, and observes the action of the various muscles upon the eye-ball and the interference with this motion as a result of the paralysis of one or of a group of these muscles.

Models of the ear are furnished and the student observes the methods by which sound is transferred from the external world to the inner ear, and the action of the various pathological changes in the inner ear upon the transmission of sound waves.

Each student is supplied with a perimeter, an ophthalmoscope, and a retinoscope. He makes practical determination of the fields of vision in the human subject and learns to use the ophthalmoscope and the retinoscope upon artificial eyes, upon the rabbit's eye, and upon the human eye.

This course is designed to give the student a practical knowledge of the instruments and physiological methods commonly used in the practice of medicine, especially in ophthalmoscopy and refraction.

1. ELEMENTARY PHYSIOLOGY—Lectures, recitations, and demonstrations dealing with the physiology of the animal and plant cell, the fundamental properties of protoplasm, and the proximate principles of the animal body. Three hours a week, first term, first semester, freshman year. Professor DEAN.

2. SYSTEMIC PHYSIOLOGY—Lectures, recitations, and demonstrations. This course includes the physiology of blood, circulation, respiration, and the lymphatic system. Three hours a week, second term, first semester, freshman year. Professor DEAN.

3. PHYSIOLOGY OF SECRETION—Lectures, recitations, and demonstrations dealing with the physiology of secretion. Both the external and the internal secretions are studied. The changes in the secretory cells and the nervous mechanism governing the secretions are investigated. The course includes a discussion of the physiology of the kidney, skin, ductless glands, and other glands in the body. Three hours a week, first term, second semester, freshman year. Professor DEAN.

4. PHYSIOLOGY OF DIGESTION—Lectures, recitations, and demonstrations. This course includes a study of the various

digestive juices and their activities, the nervous mechanism governing the digestive organs, the absorption of food-stuffs, and body metabolism. Three hours a week, second term, second semester, freshman year. Professor DEAN.

5. PHYSIOLOGY OF MUSCLE AND NERVE—Lectures, recitations, and demonstrations. This course includes a study of the activity of muscle and nerve under normal and abnormal conditions and the electrical disturbances in muscle and nerve. Three hours a week, first term, first semester, sophomore year. Professor DEAN.

6. GENERAL PHYSIOLOGY OF THE CENTRAL NERVOUS SYSTEM—Lectures, recitations, and demonstrations. This course includes the physiology of the spinal cord, sympathetic system, and the peripheral nerves. Three hours a week, second term, first semester, sophomore year. Professor DEAN.

7. PHYSIOLOGY OF THE BRAIN AND CRANIAL NERVES—Lectures, recitations, and demonstrations. Three hours a week, first term, second semester, sophomore year. Professor DEAN.

8. PHYSIOLOGY OF THE SENSES—Eye, ear, taste, smell, cutaneous and muscular sensations. Lectures, recitations, and demonstrations. Three hours a week, fourth term of the sophomore year. Professor DEAN.

9. EXPERIMENTAL PHYSIOLOGY—Laboratory work and demonstrations. This course includes a study of physiological apparatus and its uses. Experiments to demonstrate the functions of the muscular, nervous, respiratory, circulatory, and digestive systems, and on the eye and ear, are performed by the students on frogs, turtles, rabbits, pigeons, dogs, etc.

The class is divided into sections. Fifty-four hours during the sophomore year for each section. Professor DEAN, Mr. BAILEY.

10. APPLIED PHYSIOLOGICAL METHODS—Lectures, recitations, and laboratory work. This course includes a study of the refractive media of the normal eye, of the ophthalmoscope, the retinoscope, the ophthalmometer, the perimeter, and their uses.

The class in sections will use in the laboratory the above mentioned instruments until thoroughly familiar with them. Lectures one hour a week, second term, first semester, and first term, second semester, junior year. Laboratory work fifteen hours. Professor DEAN, Mr. BAILEY.

11. ADVANCED PRACTICAL PHYSIOLOGY—Elective. This course is open to students who have completed Courses 1 to 10, inclusive. The student may select any subject in Physiology and do advanced work. He will be supplied with animals and apparatus for this work. Nine hours a week during senior year. Professor DEAN, Mr. BAILEY.

DEPARTMENT OF CHEMISTRY AND TOXICOLOGY

PROFESSOR ROCKWOOD; MR. JOHNSON, MR. BRINK, MR. WERTS

The lectures in Chemistry are delivered in the Medical Building. The work in Practical Chemistry is conducted in the Chemical Building of the University in which the College of Medicine occupies rooms on the ground floor. These consist of rooms for the instructors, storerooms, and two large laboratories. They are well lighted, and are heated by steam. Ventilating shafts remove offensive and injurious gases. The outfit is ample for demonstrating the general principles of Chemistry, as well as its application to medicine. Each student is supplied free of charge with a set of the necessary apparatus, being obliged to pay only for that which is injured or destroyed.

The course in Chemistry is designed, first, to give the student a thorough knowledge in fundamental principles, then to assist him in applying these to the problems which he will meet in the practice of his profession. The lectures are fully illustrated by experiments.

1. CHEMISTRY OF THE NON-METALLIC ELEMENTS—Lectures and recitations. Freshman year, first semester. Three hours each week. Professor ROCKWOOD.

2. CHEMISTRY OF THE METALS AND THEIR COMPOUNDS—Lectures and recitations. Freshman year, second semester, first term. Three hours each week. Professor ROCKWOOD.

3. ORGANIC CHEMISTRY—Lectures and recitations. Freshman year, second semester, second term. Three hours each week. Professor ROCKWOOD.

4. QUALITATIVE ANALYSIS—A laboratory course. It includes, first, the methods of testing for the metallic poisons; then the common medicinal compounds are studied. The student learns the methods of chemical manipulation and the use of apparatus, and also becomes acquainted with the action

of reagents and of the common chemicals upon each other. The course includes the chemical examination of water from a sanitary standpoint, each student making a number of analyses of various wholesome and polluted waters. Freshman year, first semester, and first term of second semester. Six hours each week. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK, Mr. WERTS.

5. VOLUMETRIC ANALYSIS—A laboratory course. Volumetric methods of quantitative analysis are especially adapted to the needs of the physician because of the rapidity and ease with which they can be executed. The principal ones are taught and the student is given enough practice to familiarize him with them. Freshman year, second semester, second term. Six hours each week. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

6. PHYSIOLOGICAL CHEMISTRY—Lectures and recitations. The lectures are in explanation and amplification of the laboratory work. They include the study of the proximate principles of the body and their chemical changes, also foods and digestion, blood, milk, urine, fermentation, and bacterial products. Sophomore year, first semester, and first term of second semester, two hours each week, and second term, one hour each week. Professor ROCKWOOD.

7. GENERAL PHYSIOLOGICAL CHEMISTRY—A laboratory course. The proximate principles of the body and food materials are prepared by the student and their properties and chemical changes are studied. Experiments in artificial digestion are made, their products being isolated and examined. The constituents of the blood are tested chemically and spectroscopically. Sophomore year, first semester. Two hours each week. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

8. APPLIED PHYSIOLOGICAL CHEMISTRY—A laboratory course. The modern methods of Physiological Chemistry are here used in solving problems which arise in the practice of medicine. These include such as the analysis of the gastric juice, quantitative tests being made where they are valuable for diagnostic purposes; the qualitative tests for the abnormal constituents of the urine, with the quantitative determination of such as are of importance; the identification of urinary sediments, of calculi, and of blood stains. Each student makes a complete examination of a large number of each of these,

handing in written reports for correction and suggestions. Sophomore year, second semester. Two hours each week. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

9. TOXICOLOGY—Lectures and recitations. The physiological and chemical action of the principal poisons is considered as well as their antidotes. The methods of identifying poisons in food, excreta, etc., are explained and illustrated by experiments. Junior year, first semester, and first term of second semester. One hour each week. Professor ROCKWOOD.

10. CHEMISTRY AS APPLIED TO SANITARY SCIENCE—An optional laboratory course. Included in this are the methods suitable for the physician or health officer in testing water, air, milk, and other food materials as to their purity, together with the means of detecting preservatives, adulterants and substitutes. The student works independently as the course is outlined by the head of the department. The number may be limited according to the accommodations of the laboratory. Junior year, second semester. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

11. ADVANCED WORK—Suitable courses will be outlined to meet the requirements of the individual graduate student desiring to carry on advanced work either as a major or as a minor in a course leading to an advanced degree in the Graduate College of the University. The applicant for such a course must satisfy the head of the department as to his knowledge of general chemistry and as to his fitness for undertaking original investigations. The work will be under the direct supervision of the professor in charge of the department. Throughout the year. Time to be arranged. Professor ROCKWOOD.

DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY

PROFESSOR WHITEIS; MR. HOOVER, MR. SMITH, MR. BLYTHE

The Histological Laboratory occupies rooms in the College of Liberal Arts. There are laboratories for class work and for special work. The department is furnished with fifty-five compound microscopes and a number of dissecting microscopes. Among the other equipment may be mentioned several microtomes for brain sections, celloidin work, and paraffin work; incubators and injection apparatus; also the reagents and appli-

ances usually found in a well-furnished histological and embryological laboratory.

1. THE HISTOLOGY OF CELLS AND TISSUES—The first work of the course is on the structure and manipulation of the microscope. It is followed by a consideration of the classification and action of stains. Cell structure, as seen in the simpler forms of plant and animal cells, is first studied, then the more highly differentiated animal cells. After this the histology of the animal tissues is taken up. Freshman year, first semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

2. THE HISTOLOGY OF THE DIGESTIVE TRACT, GENITO-URINARY TRACT, AND RESPIRATORY TRACT—Freshman year, first semester, second term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

3. THE HISTOLOGY OF THE SKIN AND NERVOUS SYSTEM—Freshman year, second semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

4. EMBRYOLOGY AND BIOLOGY—The embryos of the chick, the frog, and some mammal will be studied, in addition to the lower forms of animal life. Freshman year, second semester, second term.

One lecture and one recitation each week. Professor WHITEIS.

Laboratory work, two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

5. LABORATORY TECHNIQUE—An optional course. Freshman year, second semester, second term. Two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

6. ADVANCED WORK FOR A DEGREE IN THE GRADUATE COLLEGE—As a prerequisite to advanced work in this department the student will be required to possess a good working

knowledge of both the methods and the subject matter of general histology and embryology. He will be assigned a private laboratory and offered such opportunities as the general laboratory and library afford. The department will supply the necessary materials in the way of tissues and reagents.

Two courses are offered as follows:

I. *The Eye*—The histology of its tissues, considered in relation to both their phylogenetic and their ontogenetic development. The structure and development of the retina will be specially studied.

II. *The Ear*—The investigation will proceed along the same lines as in the preceding course.

Throughout the year, hours to be arranged. Professor WHITEIS.

DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY

PROFESSOR BIERRING; DR. KEMMERER, DR. ALBERT, MR. LAMBERT

The course in Pathology and Bacteriology extends through the sophomore, junior, and senior years, and is presented by means of didactic lectures, recitations, demonstrations, and laboratory work. The lectures are devoted to Bacteriology and general and special Pathology, and are illustrated by means of drawings, preparations from the Medical Museum, and fresh specimens derived from post-mortem examinations and the University clinics.

The laboratory of Pathology and Bacteriology is situated in the College of Liberal Arts. It is thoroughly equipped with new microscopes of the most modern type, and all apparatus necessary for carrying on every form of bacteriological research. By reason of special association with the pathological institutes of Vienna, Leipzig, and Munich, the laboratory has come into possession of a most complete and varied collection of diseased tissues and organs, for the study of general and special pathological histology. Each student is provided with a table, a microscope, and the necessary staining reagents.

1. GENERAL PATHOLOGY AND PATHOLOGICAL HISTOLOGY—A didactic, recitation, and laboratory course, including the general features of infection, and the causation of disease processes, disorders in circulation and nutrition, inflammation,

and allied subjects. The laboratory work consists of two hours each week from January to June, and illustrates the didactic lectures. It comprises the preparation and study of slides showing the general pathologic changes that occur in human tissues. Special attention is given to the drawing of the microscopic specimens; to test the knowledge of the student reviews of unknown specimens are given at different times during the course. Sophomore year, four hours each week. Professor BIERRING, Dr. ALBERT.

2. BACTERIOLOGY—A didactic, recitation, and laboratory course for juniors from September to January, which includes the preparation of artificial culture-media, the cultivation of micro-organisms, and their separation by means of plate cultures, the staining, recognition, and diagnosis of the different pathogenic microbes as they are related to the various infectious processes.

Special attention is given to the bacteriologic analysis of water, and the practical application of bacteriologic technique to hygiene and clinical diagnosis. The didactic lectures will include such subjects as cannot properly be pursued in connection with the laboratory work. A recitation will be held each week during the course. Junior year, seven hours each week, from September to January. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT, Mr. LAMBERT.

3. SURGICAL PATHOLOGY—A laboratory course for juniors comprising principally the preparation and study of tumors.

The extensive materia from the University clinics is drawn upon, which, with the collection in possession of the laboratory, affords the opportunity of studying every possible variety of tumor formation.

Special attention is given to the drawing of microscopic sections. This and the occasional reviews of unknown specimens test the student's ability properly to make a microscopic diagnosis. Junior year, two hours each week during the second term of the first semester. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT.

4. SPECIAL PATHOLOGY—A didactic, demonstration, recitation, and laboratory course, with reference to the special pathology of the different tissues and organs of the human body.

The laboratory work will comprise the preparation and study of microscopic sections, illustrating as far as possible the subjects

considered in the didactic lectures. Frequent demonstrations of gross pathologic preparations derived from the clinics, autopsies, and the Medical Museum will further elucidate the subject. Junior year, five hours each week, from January to June. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT.

5. CLINICAL MICROSCOPY AND HÆMATOLOGY—A laboratory course for senior students, devoted to practical study of blood, urine, sputum, stomach contents, vomitus, fæces, milk, dropsical effusions, and cyst contents, and instruction in such methods of clinical diagnosis as involve the usual microscopic and bacterial analysis. Special attention is given to the rapid diagnosis of fresh material, uterine curettings, and the early signs of malignancy. Senior year, two hours each week during the first semester and first term of the second semester. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT.

6. AUTOPSIES—Post-mortem examinations are made of all available cases. Since no stated time can be set for these demonstrations, members of both junior and senior classes are excused from other work in hand to attend the clinical autopsies.

Students are permitted to assist at post-mortem examinations and are instructed in the methods of making such examinations and of recording proper protocols of the results.

The microscopic findings are studied in each case for comparison with the macroscopic changes. Professor BIERRING, Dr. KEMMERER, Dr. ALBERT.

7. ADVANCED WORK AND SPECIAL RESEARCH—Opportunity is afforded to senior and advanced students to pursue special researches in pathology and bacteriology.

Candidates for higher degrees and members of the Graduate College can carry on special work in pathology and bacteriology leading up to such degrees in the pathological laboratory under the supervision of the head of the department. Professor BIERRING.

MEDICAL JURISPRUDENCE

The course is opened with the consideration of the nature and purposes of law, then of laws affecting the practice of medicine. Malpractice is discussed and the liability to the physician by the patient and others, including that of municipalities for the treatment of patients. The questions of legal

insanity, expert evidence and expert witnesses, hypothetical cases, causes of death, and post mortem examinations follow, and, in conclusion, the subject of state and local boards of health, quarantine regulations, etc. Senior year, first semester, twelve hours. Judge WADE.

INSANITY

This subject is discussed as concisely as possible with the special needs of the general practitioner constantly in view, and the material that appears at the clinic from time to time during the term is utilized in illustration. Senior year, second semester. Twelve lectures, with clinical instruction at the Hospital for the Insane at Independence. Dr. HILL.

HYGIENE

Instruction in Hygiene, in addition to that given in the courses of Pathology, Bacteriology, and Physiological Chemistry, consists of a course of lectures and recitations. In this course will be considered the predisposing factors of disease; the principles on which immunity depends; the relation of ventilation, water-supply, food, and the disposal of waste to the public health; climatology, heredity, vital statistics and other subjects. A syllabus of the lectures will be available which will contain references to the literature of each subject. Junior year, first semester, twenty-six hours. Dr. CLARKE.

DERMATOLOGY

The instruction in this branch is largely clinical, students of the class being assigned patients for examination, diagnosis, and treatment. Didactic lectures and recitations are given on the rarer forms of disease. Senior year. Throughout the session, one hour each week. Dr. KESSLER.

DENTISTRY

The lectures on this subject comprise such principles of dental pathology and therapeutics as are essential to the practitioner of medicine. Instruction is given in the application of medicinal appliances for the correction of cleft palate, also in methods of applying retention in fractures of maxilla. Junior year, second semester, five hours. Dr. BREENE.

MATERIA MEDICA AND THERAPEUTICS

PROFESSOR ROYAL; DR. STRUBLE

The work in this department is graded and extends over the entire course of four years.

FRESHMAN YEAR — During the first semester one hour each week on the Organon. During the second semester, one hour a week on the Institutes, and Principles of Homœopathic Medicine. Professor ROYAL.

For one hour each week, during the second semester, the characteristic symptoms of the Polycrests will be thoroughly impressed upon the students' mind by lectures and quizzes. An examination is held in these branches at the end of each semester. Dr. STRUBLE.

Text-books: Hahnemann's *Organon*, Dewey's *Essentials of Materia Medica*.

SOPHOMORE YEAR—Two hours a week during the entire year are devoted to Materia Medica. Special attention is given to the action of drugs on the different tissues of the body. An examination will be held at the end of the year. Dr. STRUBLE.

Text-book: Fahnestock's *Manual of Materia Medica*.

JUNIOR YEAR—Three hours a week, besides one clinical lecture are devoted to grouping the concomitant symptoms about the characteristics and classifying them for therapeutic use. The remedies are divided into two groups. One group is considered one year and the other the next.* Professor ROYAL.

SENIOR YEAR—The seniors take three hours a week in connection with the juniors, the work being the same as outlined above. One additional hour a week is devoted to comparing the symptoms of the different drugs belonging to the same class. Instruction will also be given in the use of Repertories. Professor ROYAL.

Text-books: Farrington's *Clinical Materia Medica*, Cowperthwaite's *Materia Medica*, Allen's *Hand Book*, and Lilienthal's *Therapeutics*. Bonninghausen, *Therapeutic Pocket Book*.

* Vegetables for 1902 and 1903.

THEORY AND PRACTICE OF MEDICINE AND CLINICAL MEDICINE.

PROFESSOR BECKER; DR. JOHNSTON

The instruction in this department is didactic and clinical, and covers the ground with which a physician must be familiar. In teaching the relations of drug-pathogenesis to morbid symptoms, the established principles of homoeopathic therapeutics are consistently adhered to. The work is arranged to cover two full years.

JUNIOR YEAR—During the first semester diseases of the circulatory apparatus are considered, particular attention being given to physical diagnosis, comparison of normal and abnormal states being very completely presented. Dr. JOHNSTON.

Infections diseases and fevers are taken up, in the second semester, with particular attention to differential diagnosis. One hour a week, for two terms. Dr. JOHNSTON.

Diseases of the abdominal viscera, including the parasitic, and the diseases of the ductless glands; diseases of the muscles and joints, of the skin, and diseases common to man and animals are studied. The physical and differential diagnosis of these conditions constitute an important feature of instruction, and the lectures are supplemented by clinical demonstration. Three hours a week are devoted to class-room exercises, and two to clinical instruction, throughout the year. Professor BECKER.

SENIOR YEAR—During the second semester the diseases of the urinary organs are thoroughly studied. One hour a week. Dr. JOHNSTON.

The study of the diseases of the brain, the spinal cord, and their membranes, mental diseases and the functional nervous diseases and reflexes is systematically pursued; also vasomotor and trophic diseases. Three hours a week throughout the year. Professor BECKER.

Text-Books: Arndt's *Practice*, Goodno's *Practice*, Cowperthwaite's *Practice*, Raue's *Special Pathology* and *Therapeutic Hints*, Lilienthal's *Therapeutics*, Hale's *On the Heart*, Mitchel's *Renal Therapeutics*, Talcot's *Mental and Nervous Diseases*, Worcester's *Insanity*, Loomis's *Physical Diagnosis*, O'Connor's *Nervous Diseases*, Kippax's *Diseases of the Skin*, Taylor's *Skin Diseases*.

For Reference: Ander's *System of Medicine*, Osler's *Theory and Practice of Medicine*, Musser's *Diagnosis*.

In addition to the class room instruction, two hours a week are devoted to clinical work, at which the members of the senior class are called upon to diagnosticate cases and prescribe the indicated homœopathic remedy. The hospital and the clinics furnish an abundant supply of material for this purpose. Attendance on all clinics is required of the junior and senior classes. Students of other classes are expected to attend when other work does not interfere.

PÆDOLOGY

DR. JOHNSTON

JUNIOR YEAR—During the year one hour a week is given to the study of the diseases peculiar to children. The lectures are supplemented by quizzes, recitations, and demonstrations in the general clinic. Especial attention is given to foods, feeding, and disorders of nutrition.

Text-Books: Raue, and Tooker.

SURGERY AND SURGICAL GYNÆCOLOGY

PROFESSOR GILCHRIST; DR. PECK; DR. JOHNSON

FRESHMAN YEAR—*Minor Surgery*, including care of instruments, their selection and uses, and minor surgical procedures, such as dressing wounds, suturing, catheterization, etc. One hour a week, first term, first semester. Bandaging, preparation of splints, and other improvised appliances. One hour a week for the second term in the first semester. Dr. PECK.

Clinics are to be attended when possible.

Text-Book: Martin's *Minor Surgery*.

SOPHOMORE YEAR—*Surgical Anesthesia*, including a description of the agents employed, tests for purity, methods of administration, and treatment of accidents. One hour a week first term, first semester. Dr. JOHNSON.

Surgical Emergencies, treating of Acute Surgery in all its forms, such as hemorrhage, shock, wounds, fractures, dislocations, and foreign bodies. Two hours a week throughout the year. Professor GILCHRIST.

Attendance on general surgical clinic is obligatory.

Text-Books: Hamilton's *Fractures and Dislocations* (or Stimson); Gilchrist's *Syllabus*.

JUNIOR YEAR—*Aseptic Technique*. considering all questions relating to securing the most perfect asepsis, according to modern teaching and practice. One hour a week, first term, first semester. Dr. PECK.

Surgical Emergencies, commenced in the previous year, will be concluded. Two hours a week throughout the year. Professor GILCHRIST.

Surgical Pathology will be commenced in this year, considering the causes, symptomatology, special pathology, differential diagnosis, and treatment of conditions usually referred to the surgical practitioner. Two hours a week throughout the year. Professor GILCHRIST.

Text-Books: Gilchrist's *Elements of Surgical Pathology*, *American Text-Book*, or any modern work on Surgery.

SENIOR YEAR—*Surgical Pathology* will be concluded. Two hours a week throughout the year. Professor GILCHRIST.

Surgical Gynæcology, in which the surgical diseases of women will be systematically taught, supplemented by clinical demonstration. One hour a week throughout the year and one hour weekly in the clinic. Professor GILCHRIST.

Text-Books: Wood's, Southwick's, and at least one other modern work.

Operative Surgery, showing the general principles of surgical operations, with legal, personal, social, and professional obligations of the surgeon. The commoner operations are made upon the cadaver by the student. One hour a week during the first semester. Professor GILCHRIST.

OBSTETRICS AND MEDICAL GYNÆCOLOGY

PROFESSOR COGSWELL; DR. BYWATER

The courses in this department are graded. During the past three years the number of patients for the obstetrical clinic have been such that all who were graduated during that period have had the opportunity of witnessing three deliveries, and as the patients have resided in the Hospital for a few months before confinement an opportunity has been afforded the student for observing the signs of gestation as well as listening to the sounds of the foetal heart.

Although the amount of material for the gynæcological clinics has been fairly good, still the College will thankfully

receive from the profession such patients as would be benefited by the facilities which the hospital affords and which cannot be secured by them in their own homes.

JUNIOR YEAR—One hour a week throughout the year, is devoted to lectures and quizzes which are made as practical as possible. The subjects considered are: Review of the anatomy of the pelvis and generative organs; physiology of ovulation and gestation; care of the patient during gestation. The lectures are supplemented by models, wet and dry preparations. Professor COGSWELL.

SENIOR YEAR—During this year is taught the diagnosis of the different presentations and positions, the management of labor, both normal and abnormal, the knowledge and care of instruments, the general management of the puerpureum, as well as the care of the new-born child. Professor COGSWELL.

Text-Books—Guernsey, Leavitt, Lusk, Garniers, Davis, *Obstetric Nursing*.

JUNIOR YEAR—*Medical Gynæcology* is commenced in this year. The anatomy and physiology of the sexual apparatus and function, and methods of diagnosis and examination are systematically taught. Particular attention is given to the more theoretical side of the subject. One hour a week throughout the year. Dr. BYWATER.

SENIOR YEAR—*Gynæcology* is continued, giving attention to the diseases of women not falling to the surgical practitioner, and considered in a practical manner. Clinical demonstration will be given. One hour a week throughout the year. Dr. BYWATER.

Text-books—Southwick, Wood.

DEPARTMENT OF OPHTHALMOLOGY, OTOLOGY, AND PHYSICAL DIAGNOSIS AND DISEASES OF RESPIRATORY TRACT

PROFESSOR NEWBERRY; DR. BYWATER.

Ophthalmology

SENIORS AND JUNIORS—Didactic lectures and recitations one hour weekly during year. Professor NEWBERRY.

SENIORS, JUNIORS AND SOPHOMORES—Clinics two hours each week during year. Students are assigned cases for examination and treatment at each clinic. Professor NEWBERRY.

Otology

SENIORS AND JUNIORS—Lectures and recitations one hour each week during first two terms of year. Professor NEWBERRY.

Clinics Required—Attendance upon clinics in connection with the general eye, ear, and throat clinic, two hours each week. Professor NEWBERRY.

Rhinology and Laryngology

JUNIORS AND SENIORS—Lectures during last two terms of year. Professor NEWBERRY.

SENIORS—Subclinic one hour each week during year. Dr. BYWATER.

Physical Diagnosis of the Respiratory Tract

SOPHOMORES AND JUNIORS—Lectures and recitations upon general topography of chest, sounds heard in health and disease, etc. One hour each week during first term of first semester. Dr. BYWATER.

SENIORS—Subclinics in connection with nose and throat; practical application of late methods in diagnosis of diseases of the lungs, bronchial tubes, and pleura. One hour each week during year. Dr. BYWATER

Diseases of the Lower Respiratory Tract

SOPHOMORES AND JUNIORS—Lectures and recitations upon diseases of lungs, bronchial tubes, etc. One hour each week during last term of first semester and last semester. Dr. BYWATER.

Use of Ophthalmoscope, Laryngoscope, etc

SENIORS—Practical instruction in the use of instruments employed in diagnoses of diseases of eye, ear, nose and throat is given at stated periods throughout the year to small divisions of senior class. Dr. BYWATER.

Text-Books—*Eye*, Norton, Buffum, Noyes; *Ear*, Winslow, Houghton, and Dench; *Nose and Throat*, Ivins, Quay, and Bishop; *Physical Diagnosis*, Loomis, Somers; *Diseases of Lower Respiratory Tract*, Dinkinson, Goodno, Osler.

CLINICS

The clinics of this College are open to students of all the classes, but attendance is not obligatory in the freshman year. All the clinics are well supplied with material, in some of them the capacity of the Hospital has been severely taxed. The general arrangement and clinical system are as follows: The Senior Interne at the commencement of the term details two students from the senior class as clinical assistants. One of these retires after one week's service, one after two weeks. One student a week is detailed thereafter, so that each senior student has two consecutive weeks of clinic work. The duties are to assist at all clinics and to attend to all dressings in the Hospital, under the supervision of the Senior Interne. This gives unusual facilities for practical instruction. In the medical eye and ear clinics each member of the senior class will be given repeated opportunities for examination of patients, and will be required to diagnose the disease and suggest method of treatment. The clinics are held as follows:

Monday: Gynecological,	Professor Gilchrist
Tuesday: Eye, Ear, Nose, and Throat,	Professor Newberry
Wednesday: Medical,	Professor Becker
Wednesday: Physical Diagnosis,	Dr. Bywater
Thursday: Therapeutic,	Professor Royal
Friday: Diseases of Women,	Professor Cogswell
Saturday: General Surgery	Professor Gilchrist

SUBCLINICS—The subclinics are held two or more times a week, sections of the senior class being admitted. Opportunity is afforded all to make examinations in gynecological cases, and in the use of various instruments of precision for purposes of diagnosis.

Medical and surgical treatment are free for patients entering the general clinic. Hospital care is furnished for $7.00 a week.

Correspondence with reference to admission to the clinics or hospital should be had with the professor having charge of the particular clinic, or with the Director of the Hospital. Arrangements can be made for the reception of a limited number of obstetrical cases *only* between the 15th of September and the 15th of April.

DISPENSARY—In connection with the clinics a dispensary has been opened, where the clinical assistants, under the direc-

tion of the faculty, prescribe for and visit out-patients, and attend such cases of obstetrics as apply. The dispensary is growing in patronage and influence, and has become a highly important and profitable portion of the work, affording at once material for the clinics and practical instruction to the attendant.

REQUIREMENTS FOR GRADUATION

1. The candidate must be twenty-one years of age.
2. Moral character must be known to be unexceptionable.
3. The time of study must include attendance upon at least four full courses of lectures, the last of which must be taken in this institution. The time occupied by each of the four courses of lectures shall be not less than thirty-nine weeks, and no two of the four courses shall be within the same year.
4. The deportment during the term must have been unexceptionable.
5. Attendance upon all lectures, clinics, and other instruction in the course must have been in accordance with the requirements of the College.

In case of failure to pass any of the examinations the student may be re-examined at the opening of next session. If he fail in this second examination he will be allowed to present himself for re-examination only after attendance upon another course of lectures.

Students of the senior class who are candidates for the degree of Doctor of Medicine must, before May first, present to the Secretary of the faculty a certificate of legal age and of good moral character, also the receipts from the Treasurer of the Board of Regents showing that all fees have been paid.

BOARD AND ACCOMMODATIONS

Good board can be obtained at from $2 to $4 a week. By associating in clubs, students may supply themselves with good accommodations at a material reduction from the customary prices.

Students will be furnished with all necessary information concerning rooms and boarding by applying to the Y. M. C. A. Information Bureau.

TUITION—FEES

The fee for tuition is sixty-five dollars ($65) for each year, forty dollars to be paid at matriculation and registry, and twenty-five dollars at the commencement of the second semester. There are no extra fees whatever, but for each laboratory course in chemistry there is required a deposit of $3 to cover breakage and to insure the return of all keys at the close of the session. This sum (breakage, if any, deducted) is returned to the student.

The combined courses in which the degrees of B. S., or B. Ph., and M. D. are secured in seven years, require three years in the College of Liberal Arts, for which the fee is $25 a year. On completion of the junior year the student enters the College of Homœopathic Medicine, and the fee is $75 for each year in which the student carries work in this College.

Students who do not pay the proper fees will be suspended from the College until such fees are paid.

HOMŒOPATHIC ALUMNI ASSOCIATION

The Alumni Association held its eleventh annual meeting at the College Building, March 28, 1899, at which time the following officers were elected:

President—L. W. STRUBLE, West Liberty.
First Vice-President—F. O. RICHARDS, Winterset.
Second Vice-President—E. C. KAUFFMAN, Union.
Secretary—LEORA JOHNSON, Iowa City.
Treasurer—W. L. BYWATER, Iowa City.
Executive Committee—PRESIDENT, SECRETARY and TREASURER.

Alumni are urged to send their names to the Secretary to be enrolled as members. A small admission fee is required, the funds so procured to be devoted to the Hospital according to a vote taken at the last meeting. Alumni are requested to keep the Secretary informed of change of address.

Any further information may be obtained by addressing the President of the University, or the Secretary of the Homœopathic Medical Faculty, at Iowa City, Iowa, or the Dean, at Des Moines, Iowa.

SCHOOL FOR NURSES

A Training School for Nurses has been established by the Board of Regents, the complete course covering three years. The first year is devoted to preliminary studies fitting the pupil for the active work, that is, as nurses in the Hospital. Candidates for admission to the Training School must be not under twenty nor over thirty-five years of age, must have a common school education, and must make a written application to the Superintendent on forms prepared for the purpose and furnished on application. No other examination is required. If admitted, their first month will be probationary, and if the work has been satisfactory they will be entered upon the roll as "Freshman Nurses," and receive $5.00 a month for personal expenses, together with board, lodging, and laundry. Vacations are given, during the year, at least one month out of twelve, with additional vacation at the discretion of the Superintendent. On admission the pupil will be required to agree in writing, over her signature, to observe the rules and regulations of the Hospital. The instruction during this year is largely didactic in a carefully arranged course of lectures. Examinations for promotion to the junior year will be held in May. During the junior or second year in addition to their practical work, the nurses will have one recitation each week, and in the third year special topics for essays will be arranged. During the second year the nurses will receive $8 a month for personal expenses, with an increase to $10 for the third year. Those who complete the three years' course will receive a suitable certificate signed by the President of the University and by the Secretary of the Board of Regents. The graduating exercises occur in connection with those of the University. For further information address the Superintendent, Homoeopathic Hospital of the University.

NURSES SCHOOL

SENIOR

Dean, Meda	West Branch.
Fullmer, Jessie N.	Marshalltown.
Mether, Emmaline M.	Waverly.

JUNIOR

White, Effie I.	Mt. Pleasant.

FRESHMAN

Brady, Mabel	Mandan, N. Dak.
Brown, Adalyn E.	Cedar Rapids.
Dodge, Vera B.	Cedar Rapids.
Wagner, Harriett B.	Des Moines.

COLLEGE OF DENTISTRY

COLLEGE OF DENTISTRY

MEMBERS OF THE FACULTY AND OTHER OFFICERS

GEORGE EDWIN MACLEAN, PH. D., LL. D.,
President of the University.

FRANK THOMAS BREENE, M. D., D. D. S.,
Professor of Operative Dentistry, and Therapeutics, and Superintendent of Operative Clinic.

WILLIAM S. HOSFORD. B. A., D. D. S.,
Professor of Prosthetic Dentistry, Crown and Bridge Work, Superintendent of Prosthetic Clinic, and Dean of the Faculty.

WILLIAM HARPER DEFORD, M. A., M. D., D. D. S.,
Professor of Oral Pathology, Oral Hygiene, and Principles of Oral Surgery.

E. A. ROGERS, D. D. S.,
Professor of Dental and Regional Anatomy, and Clinical Demonstrator.

WILLIAM J. BRADY, D. D. S.,
Professor of Orthodontia, and Demonstrator of Dental Technology.

WILLIAM DRUMMOND MIDDLETON, M. A., M. D.,
Professor of Surgery and Clinical Surgery.

ELBERT WILLIAM ROCKWOOD, M. A., M. D.,
Professor of Chemistry and Metallurgy.

WALTER LAWRENCE BIERRING, M. D.,
Professor of Pathology and Bacteriology.

CHARLES SUMNER CHASE, M. A., M. D.,
Professor of Materia Medica and Therapeutics.

JOHN WALTER HARRIMAN, M. D.,
Professor of Anatomy.

WILLIAM ROBERT WHITEIS, M. S., M. D.,
Professor of Histology.

LEE WALLACE DEAN, M. S., M. D.,
Professor of Physiology.

CHARLES CLEVELAND NUTTING, M. A.,
Lecturer on Comparative Odontography.

JUDGE EMLIN MCCLAIN, M. A., LL. D.,
Lecturer on Dental Jurisprudence.

CHARLES R. BAKER, D. D. S.,
Special Lecturer on Ceramics.

FRANK B. JAMES, D. D. S.,
Demonstrator of Dental Technology.

CHARLES FREDERICK CLARKE, M. A., M. D.,
Lecturer on Hygiene.

ADELBERT W. STARBUCK, D. D. S.,
Demonstrator of Operative Technic, and Assistant Clinical Demonstrator.

ORMAN E. MCCARTNEY, D. D. S.,
Clinical Demonstrator.

HENRY MORROW, JR., D. D. S.,
Assistant Clinical Demonstrator.

CHARLES WILLIS JOHNSON, B. S., Ph. C.,
Instructor in Chemistry.

FRANK NEWTON BRINK, M. S.,
Instructor in Chemistry.

JOHN PATRICK MULLIN, M. D.,
Demonstrator of Anatomy.

THEODORE WILBERT KEMMERER, M. S., M. D.,
Demonstrator of Pathology and Bacteriology.

HENRY ALBERT, B. S.,
Fellow in Pathology.

FRED W. BAILEY, B. S.,
Assistant Instructor in Physiology.

CHARLES LEONARD SMITH, B. A.,
Scholar in Histology.

ALDEN ROBBINS HOOVER,
Assistant in Histology.

EDWARD ELLSWORTH BLYTHE,
Assistant in Histology.

JOHN LEALAND TAYLOR,
Undergraduate Demonstrator of Anatomy.

HENRY DELAVAN HOLMAN,
Undergraduate Demonstrator of Anatomy.

E. A. SPRAKER,
Custodian.

HELEN BASCHNAGEL,
Clerk.

COLLEGE OF DENTISTRY

The College of Dentistry (formerly known as the Dental Department) offers a course of study based upon a broad and liberal conception of the position of dentistry among the healing arts. The fundamental studies of medicine are combined with those of dentistry proper, thus giving a substantial foundation for comprehensive study of the whole subject with all its related branches, and affording a basis for further medical and surgical attainments.

The practical study of dentistry is amply provided for, both by means of abundant clinical practice and a systematic and thorough preliminary training in the laboratories through the technic work. The method of instruction is by lectures, recitations, demonstrations, and the actual performance of laboratory and clinical work by the student himself under the supervision of competent demonstrators.

The course extends through three years of thirty-six weeks each. The sessions are divided into two semesters of eighteen weeks each, and each semester into two terms of nine weeks.

The twenty-second annual session begins September 22, 1902, and ends June 17, 1903.

SPECIAL NOTICE

The course of study will be extended to four years of nine months each, beginning with the session of 1903–1904. All students having registered previous to September, 1903 will be classified according to the three year course. Those students registering September, 1903, or subsequently, will be classified according to the four year course.

BUILDINGS AND EQUIPMENT

The College of Dentistry was organized and held its first session in 1881. The growing importance of the Department led to the erection in 1894 of a building for its exclusive use.

These quarters have been most excellently equipped for teaching and are unsurpassed in convenience. Each student has his own locker and table in the laboratories, his seat in the lecture rooms, and his chair and cabinet in the clinic rooms, which are reserved for him throughout the entire year.

The laboratories are well lighted, each table having a large window. All the usual appliances are provided, including electric lathes for polishing.

The lecture rooms are commodious, well lighted and ventilated, and comfortably seated.

The operating rooms are exceptionally well lighted, and equipped throughout with Wilkerson and Columbia chairs, each chair being provided with fountain spittoon and a Harvard cabinet for instruments.

A special department of the general library is maintained in the building, accessible at all times. Students also have all the privileges of the general University library.

The College is equipped with a Colt & Co.'s electric stereopticon, which is a valuable addition to the teaching equipment.

The College of Dentistry is a member of the National Association of Dental Faculties, and abides by all its rules and regulations. The College also observes all the rules of the National Association of Dental Examiners.

REQUIREMENTS FOR ADMISSION

All applicants for admission must present satisfactory evidence of good moral character. Students of either sex are admitted on equal terms.

Graduates or matriculates of reputable colleges or universities, and graduates of state normal schools or accredited high schools and academies, may be admitted without examination to the first year class on presentation of diplomas or certificates of honorable dismissal.

Graduates of other high schools or academies whose courses of study are approved by the University, or pupils who have completed *at least two years* of work in such schools or in accredited schools, will be admitted without examination on presenting certificates signed by the Superintendent or the Principal containing specific statements as to the amount of work done in each study. Two years of work must include 16 preparatory credits, a preparatory credit being defined as the equiv-

alent of one high school study five days a week during a term of eighteen weeks, on the basis of four studies a day. These credits must be certified to on the blank form inserted in this Announcement, or on a similar blank which can be obtained by addressing the President of the University or the Dean of the College of Dentistry.

All other applicants for admission must pass examinations in the subjects designated in the programme of entrance examinations given below, or other subjects which are real equivalents.

Applicants presenting certificates from accredited schools for work not fully meeting the requirements for admission, will be examined in the subjects in which they are deficient.

It is urged that anyone expecting to enter the College of Dentistry next September send all necessary credentials to the University Examiner *as early in the summer as possible, and certainly before September 1.* If the credentials are satisfactory a card of admission will be sent to the applicant at once. Upon arriving in the city he should present this card to the Dean for his signature.

ENTRANCE EXAMINATIONS

Any person expecting to enter the College of Dentistry in September, 1902, should be careful to learn before the opening of the University just what entrance examinations he must pass. He can learn this by addressing the President of the University, the Dean of the College of Dentistry, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given below.* He should present himself at once at the office of the University Examiner, who will give all necessary directions.

PROGRAMME OF ENTRANCE EXAMINATIONS

Monday, September 22, to Wednesday, September 24, 1902

English and Eng. Grammar	2 credits	Tuesday, 11:00 a. m. and 4:30 p. m. Wed., 11:00 a. m. and 4:30 p. m.	
Arithmetic,	1 credit,	Tuesday,	8:00 a. m.
United States History	1 credit,	Tuesday,	1:30 p. m.
Civics,	1 credit,	Tuesday,	2:30 p. m.

Algebra,	3 credits,	Wednesday,	8:00 a. m.
Physical Geography,	1 credit,	Wednesday,	11:00 a. m.
Botany,	1 credit,	Wednesday,	3:00 p. m.
Physiology,	1 credit,	Wednesday,	4:00 p. m.

For *each separate* examinations given at any other time than that mentioned in the above programme a fee of *two dollars* will be charged by the University.

Extract from the Code of Rules of the National Association of Dental Faculties Regulating the Admission of Students.

PRELIMINARY EXAMINATION

1. The following preliminary examinations shall be required of students seeking admission to colleges of this Association:—

The minimum preliminary educational requirement of colleges of this Association, beginning with the session of 1902–1903, shall be a certificate of entrance into the third year of a high school, or its equivalent. The preliminary examination may be placed in the hands of the State Superintendent of Public Instruction.

Nothing in this rule shall be construed to interfere with colleges of this Association that are able to maintain a higher standard of preliminary education.

LIMITING THE TIME FOR THE RECEPTION OF STUDENTS

2. No member of this Association shall give credit for a full course to students admitted later than ten days after the opening day of the session, as published in the announcement.

3. In case one is prevented by sickness, properly certified to by a reputable practicing physician, from complying with the foregoing rule, the time of admission shall not be later than twenty days from the opening day.

4. That students in attendance at Colleges of this Association, to obtain credit for a full term, must be and remain in attendance until the close of the session.

ADMISSION TO ADVANCED GRADES ON CERTIFICATES

The colleges of this Association may receive into the advanced grades of juniors and seniors only such students as hold certificates of having passed examinations in the studies of the Freshman or Junior grades respectively. All students who have

successfully passed their examinations for advanced standing shall have their certificates given or mailed to them within *thirty days* after such examinations shall have been completed. Such certificates to be pledges to any college of the Association to whom the holders may apply, that the requisite number of terms have been spent in the institutions by which the certificates were issued.

STANDING OF STUDENTS HOLDING CERTIFICATES FROM DENTAL COLLEGES IN FOREIGN COUNTRIES

In case of persons holding certificates from colleges of dentistry in foreign countries, they shall be required to furnish properly attested evidence of study, attendance upon lectures, examinations passed satisfactorily, etc., just as is required of students coming from our own institutions.

ADVANCED STANDING AND ADMISSION OF GRADUATES OF MEDICINE

Advanced standing in the classes of members of this Association shall not be given students except in the following instances:—

First. Where a student shall have taken a full course in a school a member of this Association, or one especially recognized, and shall have successfully passed the required examinations.

Second. When the student shall present evidence of graduation from a reputable medical college, he may receive one year's advanced standing.

A graduate of a recognized dental college, who applies to a college of this Association for the degree of Doctor of Dental Surgery or Doctor of Dental Medicine, shall complete one full course of instruction in said college and comply with all other requirements of the senior class.

SCHEDULE OF STUDIES.

Studies marked A are completed the year so marked; those marked B continue through more than one year.

FRESHMAN YEAR

A. Chemistry, lectures.
A. Chemistry, laboratory.
A. Histology, lectures.
A. Prosthetic Technic.
B. Prosthetic Dentistry, lectures.

A. Histology, laboratory.	B. Operative Technic.
A. Dental Anatomy.	B. Anatomy.
A. Materia Medica.	B. Physiology.
A. Comparative Anatomy, with dissection.	

JUNIOR YEAR

A. Anatomy, with dissection.	A. Therapeutics.
A. Physiology.	B. Operative Dentistry.
A. Metallurgy, lectures.	B. Prosthetic Dentistry.
A. Metallurgy, laboratory.	B. Clinical Dentistry.
A. Operative Technic.	B. Orthodontia.
A. Crown and Bridge Technic.	B. General Pathology.
A. Orthodontia Technic.	B. Oral Pathology and Hygiene.
A. Special Histology.	

SENIOR YEAR

A. General Hygiene.	A. Special Therapeutics.
A. Oral Pathology and Hygiene.	A. Orthodontia.
	A. Oral Surgery.
A. General Pathology and Bacteriology.	A. Operative Dentistry.
	A. Prosthetic Dentistry.
A. Practical Bacteriology.	A. Clinical Dentistry, Operative and Prosthetic.
A. Jurisprudence.	
A. Regional Anatomy.	A. Clinical Surgery.

All students of the first and second years will be required to pass an examination on the studies pursued in their respective courses before leaving the University at the close of each term. No student who has failed in two of the studies of his course will pass to advanced standing unless these studies are made up before the second week in January of the succeeding session. No certificates are given to any who fail in more than two branches, except a time certificate stating the actual time of attendance.

Examination in conditioned studies will take place the following session, namely, the fourth week in September and the second week in January.

COMBINED COURSES LEADING TO DEGREES IN DENTISTRY AND IN SCIENCE OR THE ARTS

Arrangements have been made with the faculty of the College of Liberal Arts by which it will be possible for a student to complete the course in science and the course in dentistry in six years, thereby attaining the degrees of B. S. and D. D. S.

A student electing the Classical or Philosophical course in the College of Liberal Arts, may obtain the degree of B. A. or B. Ph. and D. D. S. in the same length of time by electing the required science of the scientific course during the years of his undergraduate course in the College of Liberal Arts and taking the course in dentistry as prescribed in the following combined course.

REQUIREMENTS FOR ADMISSION TO THE COMBINED DENTAL AND PHILOSOPHICAL OR CLASSICAL COURSES

1.	Latin, including prose composition,	8 preparatory credits
2.	English and Literature,	*7 preparatory credits
3.	History (may include Civics),	3 preparatory credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 preparatory credits
5.	Plane and Solid Geometry,	3 preparatory credits
6.	Electives (additional accreditable work in foreign language, English, History, or Science),	4 preparatory credits
	Total,	28 preparatory credits

REQUIREMENTS FOR ADMISSION TO THE COMBINED DENTAL AND SCIENTIFIC COURSE

Another excellent course leads to the degrees of B. S. and D. D. S. This course may also be completed in six years. The admission requirements are as given below:

1.	Some one foreign language (Latin preferred, but German or French accepted),	4 preparatory credits
2.	English and Literature,	*7 preparatory credits
3.	History (may include Civics),	3 preparatory credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 preparatory credits

*Since notice of this additional requirement in English and Literature was not given to accredited high schools until late in the autumn of 1901, not more than *four* preparatory credits will be required in September, 1902.

5. Plane and Solid Geometry,	3 preparatory credits
6. Electives (additional accreditable work in foreign language, English, History, or Science),	8 preparatory credits
Total,	28 preparatory credits

COMBINED COURSE LEADING TO THE DEGREES OF B. S. AND D. D. S.

First Year

German—*5
Mathematics—5
Drawing—3
English—2
Military Drill—3

Second Year

German—3
English—2
Physics—5
Zoology—5
Animal Physiology—2
Military Drill—3

Third Year

Botany—5
Chemistry—5
Animal Morphology, advanced—5
Military Drill—3

Fourth Year

Freshman Dental
French—10 hours in College of Liberal Arts.

Fifth Year

Junior Dental
Elective, of 10 hours in College of Liberal Arts

Sixth Year

Senior Dental

COMBINED COURSE LEADING TO THE DEGREES OF M. D. AND D. D. S.

Students may arrange to obtain the degrees of Doctor of Medicine and Doctor of Dental Surgery in six years. Details must be arranged by the Faculty. The requirements for admission to the combined course leading to the degrees M. D. and D. D. S. are the same as the requirements for admission to either of the two Colleges of Medicine. They are as follows: 24 preparatory credits, including at least one year of Latin, one preparatory credit being given for the successful pursuit of one high school or academy study during a semester eighteen weeks in length, with five recitation periods a week on the basis of four studies a day.

*The figures indicate the number of exercises a week. For a full statement regarding courses in College of Liberal Arts see University Calendar.

OUTLINE OF THE PLAN OF INSTRUCTION

DEPARTMENT OF OPERATIVE DENTISTRY AND THERAPEUTICS

PROFESSOR BREENE; DR. ROGERS, DR. MCCARTNEY, DR. STARBUCK

The course in operative dentistry, including operative technic, extends through the Freshman, Junior and Senior years. The clinical facilities for instruction in this department give the student an opportunity to receive thorough drill of a practical kind that can be utilized in the practice of dentistry.

To restore teeth to a normal or functional condition which have become diseased or deformed by formative chemical or mechanical means, is the ideal of operative dentistry.

To faciliate in bringing the student to the point of recognizing and accomplishing this ideal of dental art, instruction in the detail of all operations upon the teeth is taught didactically and technically.

The diadactic lectures comprise:

History of Dentistry.

Physical Diagnosis.

Care of patients.

Manipulation and Disinfection of instruments and other appliances.

Method of removing stains, salivary and sanguinary deposits.

Dental Caries.

General hygiene of the mouth.

Preparation of Cavities in teeth.

Manipulation and characteristics of materials used for fillings and inlays.

The lectures are supplemented by thorough instruction in dental anatomy which is followed by a course in operative technique. The work in this course consists of tooth carving in suitable substances, preparation of cavities in these teeth

and the introduction of a variety of filling materials in cavities formed, especial attention being given to restoration of type and contact in relation to approximation and apposition. Thus the objective results (functional improvement) are fully demonstrated.

SPECIAL THERAPEUTICS

The course in Special Therapeutics extends through the senior year.

Lectures upon this subject are descriptive of those drugs which are used in dentistry. Their derivation, therapeutical and toxilogical actions are fully presented.

The application and prescribing of remedies for the improvement and prevention of diseased conditions, is taught in a practical way by the instructors in charge of the operatory.

OPERATIVE TECHNIC

DR. STARBUCK

The course in operative technic is a preliminary training for the practical work of operative dentistry in the infirmary. This course is the result of much thought and careful preparation, and is exceptionally thorough and practical.

Instruction is given by lectures, supplemented by laboratory work and demonstrations upon an enlarged model of the teeth and jaws.

Each student carves from prepared blocks a set of teeth which are mounted in a dummy head, and in which cavities of all classes are prepared and filled, thus receiving in a most practical manner the essentials of filling materials and a knowledge of the proper uses and handling of instruments.

1. DENTAL ANATOMY—Terminology and surface nomenclature; general study of the anatomy and arrangement of the teeth; occlusion; carving of an upper and lower plaster cast of the teeth.

Freshman year,' first term, first semester. One laboratory period per week with explanatory lecture.

Dissection of extracted teeth; free hand drawing of the individual teeth; carving individual teeth and occluding same.

Second term, first semester, and first term, second semester, one laboratory period per week with explanatory lectures.

2. INSTRUMENTATION—Instrument nomenclature; instrument making; practical study of filling materials.

Second term, second semester, two laboratory periods per week with explanatory lectures.

3. CAVITY PREPARATION AND FILLING — Adjustment of dam, clamps, matrices, and separators; preparation of simple cavities; cement, tin, and simple amalgam fillings.

JUNIOR YEAR—First term, first semester. Four laboratory periods per week with explanatory lectures.

Preparation of compound cavities; amalgam and gold fillings; pulp and abscess treatments; root canal filling.

Second term, first semester, four laboratory periods per week. Dr. STARBUCK.

DEPARTMENT OF PROSTHETIC DENTISTRY

PROFESSOR HOSFORD; DR. BRADY, DR. JAMES, DR. MORROW

This course is graded and extends throughout the Freshman, Junior and Senior years. This subject is presented by means of lectures, recitations, demonstrations, clinical and laboratory work.

1. IMPRESSIONS, MODELS, DIES AND COUNTER DIES—This course is didactic and illustrated from practical cases, charts and lantern slides.

Lectures and one recitation per week, first term, first semester.

2. DENTURES—Full upper and lower, also partial dentures, on various bases such as vulcanite, gold, aluminum, celluloid and porcelain.

It is the aim to teach not only the mere mechanical processes in these several courses, but also that combination of art with mechanism which enables the practitioner to effect so much in restoring the symmetry of the face and the usefulness of the teeth when they have been lost or impaired by accident or disease.

Two lectures, one recitation per week, first semester, second term.

3. CROWN AND BRIDGE WORK—This course consists in the consideration didactically and practically in the Infirmary of the making and application of the various kinds of crowns and bridges.

Two lectures, one recitation per week, second semester, third term.

4. CERAMICS AND CLEFT PALATE—The course in Porcelain embraces the consideration of the Ceramic art in the various practical uses in crown, bridge and continuous gum work, also the uses of the different kinds of porcelain furnaces.

Cleft palate is treated didactically and from a mechanical standpoint in the infirmary. The surgical cases are referred to the chair of oral surgery. Professor HOSFORD.

5. FRESHMAN PROSTHETIC DENTISTRY—A didactic and laboratory course including the principles and methods of taking impressions, pouring models. The making of dies and counter dies. The making of different styles of dentures on bases of vulcanite, aluminun and goldine. Vulcanizing, repairing and finishing of cases made. Laboratory work, six hours per week from September to June; and one lecture per week. Dr. JAMES.

6. JUNIOR PROSTHETIC DENTISTRY—A didactic and laboratory course embracing the principles and their application in the making of the various kind of crowns and bridges on models secured from practical cases.

The laboratory work consists of twelve hours per week, first semester, two lectures and one recitation per week for thirty-six weeks.

This course is supplemented by actual clinical experience from January to June. Professor HOSFORD, Dr. BRADY.

7. SENIOR PROSTHETIC DENTISTRY—A didactic recitation and clinical course for senior students from September to June. Each senior student is required to perform a certain amount of prosthetic work in the infirmary to prove his or her efficiency in this subject. The large clinical attendance furnishes every facility to the student to meet every requirement.

Two lectures and one recitation per week, for thirty-six weeks.

Infirmary hours, twenty-seven per week. Professor HOSFORD, Dr. MORROW.

DEPARTMENT OF ORAL PATHOLOGY AND HYGIENE

PROFESSOR DEFORD

This subject is taught by means of lectures, diagrams, models, specimens, recitations, personal interviews, and work by each member of the class upon patients in the clinic.

A few introductory lectures are given on the following topics:

1. Disease, its nature, cause, course, progress, methods of extension and termination.
2. Anaemia, Hyperaemia, Congestion, Inflammation and its terminations in Suppuration, Necrosis and Grangrene.

The course proper embraces a thorough training in pathological conditions incident to dentition, embodying both local and systematic conditions.

1. Dental Caries, various theories accounting for same, with experiments and methods by which conclusions are reached.
2. Pathological conditions of the teeth, including sensitive dentine, hyperaemia, congestion and inflammation of the pulp, gangrenous pulps and pulp nodules.
3. Inflammation of the peridental membrane including all forms of pericementitis.
4. Alveolar Abscess, acute, chronic—both local and systemic manifestations.
5. Pyorrhoea Alveolaris.
6. Gingivitis.
7. Abrasion and erosion of the teeth.
8. Non-surgical disease of the mouth.
9. The tongue and the mouth in diseases of remote parts.
10. The following pathological conditions will be treated clinically and practically, their histology and microscopical pathology being taught in the histological and pathological laboratories.

    Tumors—benign and malignant—their diagnosis.
11. Hypertrophy.
12. Epulides.
13. Osteoma.
14. Cystic tumors—simple and compound.
15. Antrum of Highmore and its diseases.
16. Ranula.
17. Mouth breathing, nasal, pharyngeal, and oral causes.
18. Alveolar and Maxillary Necrosis.
19. Epithelioma.
20. Syphilis—especially oral manifestations.
21. Neuralgia, and
22. Numerous pathological conditions which are properly sub-divisions to the former classifications. Junior and Senior classes three hours per week and frequent recitations.

ORAL HYGIENE

PROFESSOR DEFORD

The importance of this subject cannot be overestimated when it is understood that decay of the teeth, suppuration of the pulp, alveolar dental abscess, pyorrhoea alveolaris, and perhaps other diseases with which dentists have to contend, are the

direct result of unhygienic conditions in the oral cavities. The processes of fermentation, suppuration, and infection in general are considered, and full instruction given in oral, personal, and office hygienic, and in the best methods of disinfection and antisepsis, including the care of the instruments in daily use.

DEPARTMENT OF ORTHODONTIA

PROFESSOR BRADY

A very complete course is given in this branch, consisting of lectures (illustrated by the stereopticon and by charts) combined with work in orthodontic technic in the laboratory during the Junior year, and with practical work in the infirmary during the Senior year, where an abundance of material is at hand. Each senior student is required to undertake at least one practical case, and may take more if desired. These cases have the direct supervision of the professor in charge.

The course is strictly graded, the work and lectures of the different years being entirely separated.

ORTHODONTIA TECHNIC

The work in orthodontia technic closely follows the lectures of the Junior year, and consists of a study of the normal occlusion of the teeth, the practical application of appliances to selected models of irregular teeth, and much practice in the classification and diagnosis of malocclusion from models, thus giving preliminary training for the practical work.

1. MODELS AND OCCLUSION.—Impressions in compound, for temporary purposes. Impressions in plaster, with the details of removal from the mouth, rearrangement, varnishing, filling, separating, and the trimming and arrangement of models.

The principles of occlusion, and restoration of normal occlusion upon irregular models.

One lecture and two laboratory periods a week, first term, second semester, junior year.

2. TECHNIQUE OF APPLIANCES.—The use of plain bands in orthodontia, with the details of soldering same, and various attachments thereto. The application of clamp bands, the expansion arch, the contraction arch, the jackscrew and wire ligatures. Retaining appliances, and the details of their mauufacture.

One lecture and two laboratory periods a week, second term, second semester, junior year.

3. GENERAL CONSIDERATIONS.—Development of the teeth, jaws, and alveolar process. Eruption and absorption of the teeth. Histology of the pulp, peridental membrane and alveolar process. Physiology of tooth movement and secondary osseous deposits. Study of facial art and expression.

One lecture a week, first term, first semester, senior year.

4. MALOCCLUSION.—The causes of malocclusion. The classification of malocclusion. The treatment of malocclusion.

One lecture a week, second term, first semester, and continued through first term, second semester, senior year.

5. HISTORICAL, regarding appliances and methods. Fractures of the jaws.

One lecture a week, second term, second semester, senior year.

6. INFIRMARY.—In addition to the above lectures during the senior year, cases are treated in the infirmary daily from 3 to 5 p. m.

DEPARTMENT OF DENTAL AND REGIONAL ANATOMY

PROFESSOR ROGERS

1. DENTAL ANATOMY.—The instruction in this subject will be given by means of lectures and recitations, supplemented in the second semester by laboratory technic.

The study of Dental Anatomy includes a careful study of the surfaces, ridges, fossae, grooves, etc., of the individual teeth of both the deciduous and permanent sets; their origin, formation, calcification, eruption and peculiarities in formation and growth.

The lectures are illustrated by charts, models, and the stereopticon.

Freshman year, one hour each week, second term of first semester and second semester.

2. REGIONAL ANATOMY.—Lectures and recitations. The instruction in Regional Anatomy is supplementary to the instruction in General Anatomy. It includes a thorough study of the bones, muscles, blood-vessels, and nerves of the head and face, especially those intimately associated with physiology

and pathology of the dental organs. Lectures on blood and nerve supply to the teeth are illustrated by the stereopticon. Other lectures are illustrated by maps, charts and models and by well prepared specimens of the head, jaws, teeth and nerves in situ.

Senior year, first semester and first term of second semester, one hour each week.

DEPARTMENT OF GENERAL ANATOMY

PROFESSOR HARRIMAN; MR. TAYLOR, MR. HOLMAN

Anatomy is taught by means of lectures, conferences, recitations, and demonstrations, and by practical work in the laboratories.

Lectures are illustrated by charts, models, blackboard figures, wet and dry specimens, and recent dissections of the human body. A complete assortment of disarticulated human bones is loaned to each student at the beginning of the year. The laboratory of practical anatomy occupies the basement of the Medical Building. Recent legislative enactment provides ample material for dissection.

1. OSTEOLOGY—A course in the anatomy of the human skeleton by means of lectures, recitations, and demonstrations.

Four hours each week during first semester, freshman year. Professor HARRIMAN.

2. ARTHROLOGY, MYOLOGY, AND ANGIOLOGY—A course in the anatomy of joints, muscles, arteries, veins, and lymphatics, by lectures, recitations, and demonstrations upon the dissected human body.

Four hours each week during first term of second semester, freshman year. Professor HARRIMAN.

3. SPLANCHNOLOGY—A course in the anatomy of the viscera and allied structures, by means of lectures, recitations, and demonstrations upon dissected bodies and wet specimens.

Four hours each week during second term of second semester, freshman year. Professor HARRIMAN.

4. OSTEOLOGY, ARTHROLOGY, MYOLOGY, AND ANGIOLOGY —A course consisting wholly of recitations upon subjects taken up during the freshman year.

Four hours each week during first term of first semester, sophomore year. Professor HARRIMAN.

5. PRACTICAL ANATOMY—A course in the dissection of the human body. Ten hours each week during second term of first semester, junior year, 3:30 to 5:30 p. m. daily, except Saturday. Dr. MULLIN, Mr. TAYLOR, Mr. HOLMAN.

Freshman dissection second term, first semester. Dr. JAMES, Dr. STARBUCK, Dr. MCCARTNEY, Dr. MORROW.

6. SPLANCHNOLOGY—A lecture, demonstration, and recitation course in the anatomy of the viscera of the trunk and genito-urinary organs.

Four hours each week during second term of first semester, sophomore year. Professor HARRIMAN.

7. NEUROLOGY AND ORGANS OF SPECIAL SENSE—A didactic, recitation, and conference course in the anatomy of the cerebro-spinal nervous system and organs pertaining to the special senses.

Four hours each week during first term of second semester, sophomore year. Professor HARRIMAN.

8. APPLIED ANATOMY—A didactic, recitation, and demonstration course on the anatomy of important regions, with special reference to its application in medical and surgical diagnosis.

Three hours each week during second term of second semester, sophomore year. Professor HARRIMAN.

9. SURGICAL ANATOMY—A lecture and recitation course on anatomy as applied to surgery.

One hour each week during second semester, junior year. (Elective). Professor HARRIMAN.

DEPARTMENT OF PHYSIOLOGY

PROFESSOR DEAN; MR. BAILEY

The department of Physiology occupies a suite of rooms which includes a laboratory of experimental physiology and a room for animals. The latter is so arranged that frogs, turtles, rabbits, etc., can be kept throughout the whole year under suitable conditions. The room is supplied with separate compartments so that animals which are being experimented upon can be kept by themselves and observed.

The physiological laboratory is equipped with a full supply of apparatus, instruments, and chemicals for experimental purposes. The outfit includes artificial respiratory machines, myo-

graphs, chronographs, various kinds of electrical batteries, galvanometers, ergographs, kymographs, stethometers, sphygmographs, hemometers, hemoglobinometers, and cardiographs.

In addition the laboratory is well equipped with various artificial eyes, retinoscopes, ophthalmoscopes, models of the eye and ear, and instruments for determining the acuity of vision and hearing.

1. ELEMENTARY PHYSIOLOGY—Lectures, recitations, and demonstrations dealing with the physiology of the animal and plant cell, the fundamental properties of protoplasm, and the proximate principles of the animal body.

Three hours a week, first term, first semester, freshman year. Professor DEAN.

2. SYSTEMIC PHYSIOLOGY—Lectures, recitations, and demonstrations. This course includes the physiology of blood, circulation, respiration, and the lymphatic system.

Three hours a week, second term, first semester, freshman year. Professor DEAN.

3. PHYSIOLOGY OF SECRETION—Lectures, recitations, and demonstrations dealing with the physiology of secretion. Both the external and the internal secretions are studied. The changes in the secretory cells and the nervous mechanism governing the secretions are investigated. The course includes a discussion of the physiology of the kidney, skin, ductless glands, and other glands in the body.

Three hours a week, first term, second semester, freshman year. Professor DEAN.

4. PHYSIOLOGY OF MUSCLE AND NERVE—Lectures, recitations, and demonstrations. This course includes a study of the activity of muscle and nerve under normal and abnormal conditions and the electrical disturbances in muscle and nerve.

Three hours a week, second term, second semester, freshman year. Professor DEAN.

5. PHYSIOLOGY OF DIGESTION—Lectures, recitations, and demonstrations. This course includes a study of the various digestive juices and their activities, the nervous mechanism governing the digestive organs, the absorption of food-stuffs, and body metabolism.

Three hours a week, first term, first semester, junior year. Professor DEAN.

6. GENERAL PHYSIOLOGY OF THE CENTRAL NERVOUS SYSTEM—Lectures, recitations, and demonstrations. This course includes the physiology of the spinal cord, sympathetic system, and the peripheral nerves.

Three hours a week, second term, first semester, junior year. Professor DEAN.

7. PHYSIOLOGY OF THE BRAIN AND CRANIAL NERVES—Lectures, recitations, and demonstrations.

Three hours a week, first term, second semester, junior year. Professor DEAN.

DEPARTMENT OF CHEMISTRY AND METALLURGY

PROFESSOR ROCKWOOD; MR. JOHNSON, MR. BRINK

The course consists of lectures with recitations, and of practical work in the laboratory. The former are given in the Medical Building; the latter in the Chemical Laboratory of the University.

1. GENERAL CHEMISTRY.—This is taught by lectures and recitations in which the general principles of the science are considered, special attention being given to their application to dental operations and to the needs of the dental practitioner.

Freshman year, second term of the first semester, and first term of the second semester. Two hours each week. Professor ROCKWOOD.

2. ANALYTICAL CHEMISTRY.—A laboratory course, the object of which is to familiarize the student with chemical manipulations and the use of apparatus as well as with the action of reagents and the properties of the most important metallic compounds.

Freshman year, second term of the first semester, and first term of the second semester. Five hours each week. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

3. METALLURGY.—The lectures treat of the separation of the metals from their ores, their refining, and the properties of those of most use in dentistry, the preparations, properties and methods of working dental alloys including the nature, manufacture and testing of amalgams.

Junior year, first semester, first term. Two hours each week. Professor ROCKWOOD.

4. PRACTICAL METALLURGY.—This consists of laboratory study of the metals most commonly used in dentistry,—their physical properties and chemical changes, particularly those produced by the action of heat. Opportunity is afforded for making and testing amalgam alloys and for learning the methods of refining gold, silver and platinum.

Junior year, first semester, first term. Professor ROCKWOOD, Mr. JOHNSON, Mr. BRINK.

DEPARTMENT OF MATERIA MEDICA AND THERAPEUTICS

PROFESSOR CHASE; MR. BAILEY

1. INORGANIC MATERIA MEDICA—The course is introduced by definitions, routes and modes of administering drugs, dosage, classification of official preparations, and a discussion of prescription-writing, including the subject of incompatibilities. Following such general topics inorganic drugs are taken up in a natural order of grouping.

Freshman year, first semester. Professor CHASE.

2. ORGANIC MATERIA MEDICA—Drugs both of vegetable and of animal origin will be considered. As before they will be grouped with reference to some dominant or characteristic action. Thus are grouped together drugs affecting the nervous system, the heart, and circulatory system, the respiration, etc. Toward the close of the year a general review is given.

Freshman year, second semester. Professor CHASE.

3. THERAPEUTICS—General Therapeutics is presented at the outset by means of such subjects as pneumotherapy, hydrotherapy, balneotherapy, climato-therapy, psychotherapy, hypnotism, suggestion, heat and cold, light and darkness, and other general therapeutic measures more or less mechanical.

Junior year, first semester, first term. Two lectures and recitation each week. Professor CHASE.

4. THERAPEUTICS.—Following the preceding course drugs of a general nature or such as affect the tissues of the body generally, and drugs which affect particular organized systems, are presented separately: for example, those used to stimulate or depress the heart, to modify nutrition, or those which act upon the nervous system.

Junior year, first semester, second term. Two lectures and one recitation each week. Professor CHASE.

5. THERAPEUTICS—The preceding course is followed by a discussion of local remedies; that is, remedies acting upon mucous membranes to stimulate their functional activity. Prescription-writing will be given careful attention throughout the year, the aim being to illustrate each drug with one or more practical prescriptions and to discuss briefly its mode of administration.

Junior year, second semester. Two lectures and one recitation each week. Professor CHASE.

6. EXPERIMENTAL PHARMACOLOGY—During both semesters of the Junior year a practical course is given, illustrating the action of the more important drugs upon the inferior animals. Professor CHASE and Mr. BAILEY.

7. PRACTICAL DENTAL THERAPEUTICS.—A discussion of such drugs as are used chiefly by the dental practitioner.

Senior year, both semesters. Professor CHASE.

8. PRACTICAL GENERAL THERAPEUTICS.—An elective course. A review by way of theses prepared by the students, upon stated cases involving original research and reference to the latest and most approved medical periodicals. Such theses will be read and discussed by the members of the senior class.

One hour each week, first semester, and first term of second semester.

General review of entire subject. Second term of second semester. One hour each week. Professor CHASE.

DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY

PROFESSOR WHITEIS; MR. HOOVER, MR. SMITH, MR. BLYTHE

The Histological Laboratory occupies rooms in the College of Liberal Arts. There are laboratories for class work and for special work. The department is furnished with fifty-five compound microscopes and a number of dissecting microscopes. Among the other equipment may be mentioned several microtomes for brain sections, celloidin work, and paraffin work; incubators and injection apparatus; also the reagents and appliances usually found in a well-furnished histological and embryological laboratory.

1. THE HISTOLOGY OF CELLS AND TISSUES—The first work of the course is on the structure and manipulation of the microscope. It is followed by a consideration of the classification and action of stains. Cell structure, as seen in the simpler forms of plant and animal cells, is first studied, then the more highly differentiated animal cells. After this the histology of the animal tissues is taken up. Freshman year, first semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH.

2. THE HISTOLOGY OF THE DIGESTIVE TRACT, GENITO-URINARY TRACT, AND RESPIRATORY TRACT—Freshman year, first semester, second term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH, Mr. BLYTHE.

3. THE HISTOLOGY OF THE SKIN AND NERVOUS SYSTEM—Freshman year, second semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH, Mr. BLYTHE.

4. EMBRYOLOGY AND BIOLOGY—The embryos of the chick, the frog, and some mammal will be studied, in addition to the lower forms of animal life. Freshman year, second semester, second term.

One lecture and one recitation each week. Professor WHITEIS.

Laboratory work, two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH, Mr. BLYTHE.

5. LABORATORY TECHNIQUE—An optional course. Freshman year, second semester, second term. Two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. SMITH, Mr. BLYTHE.

6. ADVANCED WORK FOR A DEGREE IN THE GRADUATE COLLEGE—As a prerequisite to advanced work in this department the student will be required to possess a good working knowledge of both the methods and the subject matter of

general histology and embryology. He will be assigned a private laboratory and offered such opportunities as the general laboratory and library afford. The department will supply the necessary materials in the way of tissues and reagents.

Two courses are offered as follows:

I. *The Eye*—The histology of its tissues, considered in relation to both their phylogenetic and their ontogenetic development. The structure and development of the retina will be specially studied.

II. *The Ear*—The investigation will proceed along the same lines as in the preceding course.

Throughout the year, hours to be arranged. Professor WHITEIS.

DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY

PROFESSOR BIERRING; DR. KEMMERER, DR. ALBERT, MR. LAMBERT

The course in Pathology and Bacteriology extends through the senior year, and is presented by means of didactic lectures, recitations, demonstrations, and laboratory work.

The lectures are devoted to General Pathology, Special Pathology and Bacteriology, and are presented by means of charts, drawings, preparations from the museum, and flesh specimens derived from post-mortem examinations and the University clinics.

The laboratory of Pathology and Bacteriology is situated in the College of Liberal Arts. It is thoroughly equipped with new microscopes of the most modern type, and all apparatus necessary for carrying on every form of bacteriological research. Each student is provided with a table, a microscope, and the necessary staining reagents.

1. GENERAL PATHOLOGY. A didactic, recitation, and demonstration course, including the general features of infection and the causation of disease processes, disorders in circulation and nutrition, inflammation, and allied subjects.

First semester, two hours each week. Professor BIERRING.

2. TUMORS AND SPECIAL PATHOLOGY. A didactic, recitation, and demonstration course, including the different forms of new growths, and the disease changes occurring in special

structures, especially the oral tissues and such changes as come within the sphere of dental surgery.

First term, second semester, two hours each week. Professor BIERRING.

3. PATHOLOGICAL HISTOLOGY. A laboratory course in general pathology, tumors, and special pathology, which is illustrative of the didactic lectures, comprising the preparation and study of slides, showing the general pathologic changes that occur in human tissues, a complete collection of tumors, and special diseased conditions of the oral cavity and adjacent structures.

Special attention is given to the drawing of the microscopic specimens; to test the knowledge of the student reviews of unknown specimens are given at different times during the course.

Second term, first semester, first term, second semester, two hours each week. Professor BIERRING, Dr. ALBERT, Mr. LAMBERT.

4. BACTERIOLOGY—A didactic, recitation, and laboratory course including the cultivation of micro-organisms, their separation by means of plate cultures, the staining, recognition, and diagnosis of the different pathogenic microbes, with special reference to the micro-organisms of the buccal cavity and their relation to the various infectious processes of adjacent tissues.

Second term, second semester. Professor BIERRING, Dr. ALBERT, Mr. LAMBERT.

DEPARTMENT OF SURGERY

PROFESSOR MIDDLETON; DR. DEFORD

This subject is taught by means of clinics, lectures and recitations.

1. CLINCAL SURGERY.—All operations pertaining to oral surgery which, from the nature of the case, can not be cared for in the dental infirmary, will be performed in the University Hospital.

Senior class 1:30 to 4, Thursdays. Professor MIDDLETON.

2. THE PRINCIPLES OF ORAL SURGERY.—The course in oral pathology is supplemented by a discussion of shock, surgical fever, septicæmia, pyæmia, tuberculoses, etc. Also lectures on operative procedure, methods of antisepsis and sterilization, hæmostasis, ligatures, dressings and care of wounds.

Senior class one hour per week. Dr. DEFORD.

GENERAL HYGIENE

Instruction in Hygiene, in addition to that given in the courses of Pathology, Bacteriology, and Physiological Chemistry, will consist of a course of lectures and recitations. In this course will be considered the predisposing factors of disease; the principles on which immunity depends; the relation of ventilation, water-supply, food, and the disposal of waste to the public health; climatology, heredity, vital statistics and other subjects. A syllabus of the lectures will be available which will contain references to the literature of each subject.

Senior year, first semester, twenty-six hours. Dr. CLARKE.

COMPARATIVE ODONTOGRAPHY

A general view of the dental organs of animals affords many points of practical interest to the dental student, and throws light on some perplexing questions that arise in connection with peculiarities of the human teeth. Such a view is afforded by this course of lectures. Particular attention is paid to the various mechanical contrivances by which Nature has met special dental problems. In addition to this general discussion of the teeth of animals, some attention is paid to the embryology and histology of these organs. A special feature of the course is a demonstration, by means of projection of the actual slides, of some obscure points regarding the vascular supply of the teeth and peridental membrane. This is made possible by means of a series of preparations by which sections of teeth, including the pulp and other soft structures, are made without decalcification.

The course is amply illustrated by specimens from the natural history museum, charts, and lantern slides.

Second semester, fourth term. Professor NUTTING.

DENTAL JURISPRUDENCE

The state law regulating the practice of dentistry is fully discussed. The general principles of legal liability will be explained and suggestions are made as to the legal rights of the practitioner with reference to his compensation. Judge MCCLAIN.

PRACTITIONERS' COURSE

This course is planned for the convenience and benefit of practitioners. It will be optional with those entering the course as to what studies they will pursue, and what methods in practical work they may take up. The curriculum will be arranged more especially to give a thorough course in pulp and abscess treatment and other pathological conditions of the oral cavity. In addition to this, detailed instruction will be given in bridge and crown work, continuous gum dentures, porcelain fillings, and in the methods of working metals by all the different operations which the practitioner is called upon to perform.'

REQUIREMENTS FOR ADMISSION TO PRACTITIONERS' COURSE

Anyone in reputable practice may enter this course. Graduates of this college will be admitted on the payment of the matriculation fee only. Graduates of other reputable dental schools will be admitted on the payment of the matriculation fee and $10.

A full corps of demonstrators in all subjects has been appointed to attend to the duties pertaining thereto. The service of several additional clinical instructors will be obtained during the session, each a specialist.

FEES FOR PRACTITIONERS' COURSE

Matriculation fee	$ 5.00
Tickets, including certificates	25.00
Laboratory fee	6.00
	$36.00

DENTAL ASSISTANTS' COURSE

A training school for dental assistants has been authorized by the Board of Regents. The course will extend through one year of nine months, beginning and ending with the regular dental year. The fee for tuition is $100 for the course, of which $60 is payable on date of registration, and the balance at the opening of the second semester. Candidates for admission to this course must possess a common school education, and must present two letters of recommendation as to their capabilities, qualifications, and moral character. No other examination for

admission will be required. This course will be both didactic and practical, thorough instruction being given in operative and prosthetic technic, therapeutics, pathology, and dental anatomy; there are also special lectures and work relative to the duties of an assistant both at the operating chair and in the laboratory.

Credits obtained in this course will be allowed to those desiring to attend and complete the regular dental course, providing the requirements are fulfilled as provided for the regular dental course.

DENTAL MUSEUM AND LIBRARY

Members of the dental profession, dental students, and all persons interested, are invited to contribute to the museum such specimens of malformation, normal or diseased conditions as will serve for illustration of dental teaching; also to the library any books, pamphlets, journals, or other reading matter pertaining to dental subjects. Such contributions will be duly labeled with the donor's name and carefully preserved.

REQUIREMENTS FOR GRADUATION FOR SESSION OF 1902–1903

The candidate for graduation must be of legal age and of good moral character; must present to the faculty a satisfactory case of artificial dentistry; also the required clinical record of practical operations on the natural teeth; must sustain a satisfactory examination in the branches taught, and must prove his fitness for the practice of dentistry.

The time of study must include attendance on three courses of lectures, the last of which must be at this college.

The deportment during the course must have been unexceptional, and attendance upon all lectures, clinics, and other instruction in the course must have been in accord with the requirements of the college.

Members of the junior class must be examined finally in anatomy, physiology, metallurgy, therapeutics, and special histology.

Members of the senior class must notify the Dean of the Faculty in writing during the second week of April of their intention of becoming applicants for the degree of Doctor of Dental Surgery, at the same time presenting a certificate from

the Treasurer of having paid all fees, and a certificate of legal age and good moral character.

Attendance on any course of lectures in other reputable dental colleges having similar requirements will be accepted as equivalent to a corresponding course in this college. Graduates of medical colleges will be required to attend two full years of instruction in this college, including all laboratory and clinical requirements, and all lectures, before applying for graduation.

Having complied with the requirements of this college, the faculty will recommend the candidate to the Board of Regents as entitled to receive the degree of Doctor of Dental Surgery.

TUITION

The fee for tuition is $100 for each year, payable $60 on date of registration and $40 at the opening of the second semester. There are no extra fees whatever, but a deposit of $3 must be made to cover breakage and loss before beginning work in the chemical laboratory. All materials used in the laboratory and Operative Technic work are furnished by the college, except gold.

The above statement of the fees is now in effect, and will be understood to apply to all students in the college, entirely irrespective of the date of registration.

PAYMENT OF FEES

All fees must be paid promptly, when due, to the Treasurer of the Board of Regents, Lovell Swisher. Students who do not pay the fees when due will be suspended from the college until payment has been made.

TEXT-BOOKS AND BOOKS OF REFERENCE

These can be obtained at the bookstores in Iowa City. Dealers give a discount of from ten to twenty per cent. The following are recommended by the Faculty:

Operative Dentistry: American Text-book of Operative Dentistry, Ottolengui, Flagg's Plastics, Johnson's Method of Filling Teeth.

Prosthetic Dentistry: Essig's Prosthetic Dentistry, Richardson's Mechanical Dentistry, Evan's Artificial Crown and Bridge Work; collateral reading, Harris's Principles and Practice, American System of Dentistry.

General Pathology: Green, Stengel, Zeigler, Delafield, Pruden.

Bacteriology: Abbott, Crookshank, McFarland.

Histology: Piersol, Schaefer, Stirling, Klein.

Oral Pathology and Hygiene: Greene, Garretson's Oral Surgery, Wilson on Hygiene, Marshall's Diseases of Face, Mouth, and Jaws, Barrett's Oral Surgery, Birchard's Dental Pathology.

Chemistry: General Chemistry—Rockwood, Wurtz, Bloxam, Witthaus; Qualitative Analysis—Thorpe, Crafts.

Materia Medica: White and Wilcox, Potter.

Therapeutics: H. C. Wood, Potter, Gorgas.

Anatomy: Gray (13th edition), Holden's Landmarks, Quain (10th edition), Holden's Osteology, McClellan's Regional Anatomy, Treve's Applied Anatomy.

Physiology: Landois and Sterling, Kirk, Stewart.

Orthodontia: Angle, Guilford.

Dental Anatomy: Black, Broomel.

Comparative Anatomy: Howell.

Dictionaries: Harris, Dunglison, Thomas, Gould.

BOARD AND ACCOMMODATIONS

Board in Iowa City can be obtained for from $2.00 to $3.00 a week; rooms from $2.00 to $8.00 a month. Many students procure rooms, and board in clubs, which materially reduces the cost.

Seats will be assigned by classes in the order of registration at the University.

Operating chairs will be assigned to the senior class in the order of registration at the University.

Students should make their arrangements to be in attendance on the first day of the session, as the faculty cannot adjust their plans to the tardy arrival of students by wasting time on unimportant lectures at the beginning. Promptness at the beginning of the term is very essential.

Members of the profession who receive this catalogue are requested to notify the Secretary of any change in address. They will also confer a favor by sending the names of other dentists practicing in the towns in which they reside. For further information apply to William S. Hosford, Dean of the College of Dentistry, Iowa City, Iowa.

DENTAL CLINICS

STATISTICS—FOR THE YEAR 1901-1902

No. of patients treated in all departments	9272

OPERATIVE DEPARTMENT

No. of fillings—gold	1646
No. of fillings—amalgam	2768
No. of fillings—cement	734
No. of pulp cases	1832
No. of cleaning cases	644
No. of pyorrhœa cases	63
No. of extraction cases	572
No. of abscess cases	51
No. of Necroses cases	5

PROSTHETIC DEPARTMENT

No. of specimen sets of artificial teeth	312
No. of sets of artificial teeth	118
No. of sets of artificial teeth repaired	112
No. of specimen partial dentures	140
No. of specimen partial dentures, metal	70
No. of specimen full dentures, metal	210
No. of cleft palate appliances	2

CROWN AND BRIDGE WORK

No. of crowns and caps	708
No. of porcelain crowns	373
No. of pieces of bridge work	367
No. of specimen crowns and bridges	543

ORTHODONTIA DEPARTMENT

No. of sets of teeth regulated	45

The following is a specimen program:

FRESHMAN YEAR

A. M.	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8	Physiology 1	Physiology Recitation 2	Materia Medica 4	Materia Medica 4	Histology 2	Anatomy 1
9	Prosthetic Technic	Physiology 1	9 to 11 *Histological Laboratory*	Histology 2		Anatomy Recitation 1
10	Anatomy 1	Anatomy 1		10 to 12 *Histological Laboratory*	Anatomy 1	
11	Histology 2	Recitation Histology	Materia Medica 4			
P. M.						
1	1 to 4 *Sec. II. Prosthetic Laboratory*	1 to 4 *Sec. I. Prosthetic Laboratory*	1 to 4 *Sec. II. Prosthetic Laboratory*	1 to 4 *Sec. I. Prosthetic Laboratory*	1 to 4 *Dental Technic*	
2						
3						
4						
5						

2nd Term 1st Semester. Dental Anatomy, Dissection, Chemistry. Hours to be announced.

JUNIOR YEAR

A. M.	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8	Operative Dentistry 3	Anatomy 1		Prosthetic Dentistry 3	Prosthetic Dentistry 3	
9	Operative Dentistry 3		Therapeutics 2	Physiology 1	Physiology Recitation	Chemistry 2
10	Physiology 1	Chemistry 2	Anatomy 1	Anatomy 1	Orthodontia 3	
11			Anatomy Recitation 1	Therapeutics 5	Anatomy 1	
P. M.						
1	1 to 4 *Sec. I. Prosthetic Laboratory*	1 to 4 *Sec. I. Prosthetic Laboratory*	1 to 3 *Sec. I Prosthetic Laboratory*	1 to 4 *Sec. I. Prosthetic Laboratory*		
2			*Sec. II. Operative Technic*	*Sec. II Operative Technic*	3 to 5:30 *Jun. Class Chemical Laboratory*	
3			3 to 5:30 *Jun. Class Chemical Laboratory*	4 to 5 *Materia Medica*		
4	*Sec. II. Operative Technic*	*Sec. II. Operative Technic*				
5						

Sections I and II will alternate each week in Prosthetic and Operative Technic Laboratories. Infirmary after completion of Laboratory Courses.

Pathology and Special Histology, Second Semester, 4th term.

Special Pathology and Oral Surgery after January 2nd, hours to be announced. Dissection Second Semester.

SENIOR YEAR

A. M.	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8	Operative Dentistry 3	Special Therapeutics 3	General Hygiene 3	Prosthetic Dentistry 3	Prosthetic Dentistry 3	9 to 12 *Infirmary*
9	Operative Dentistry 3	Special Therapeutics 3	Pathology 3	9 to 11 *Pathologic'l Laboratory*	Recitation Prosthesis 5	
10	Special Lectures	Regional Anatomy 3			Orthodontia 3	
11	Special Lectures	Special Lectures	General Hygiene 1			
P. M.						
1	1 to 5 *Infirmary*	1 to 5 *Infirmary*	1 to 5 *Infirmary*	1 to 5 *Infirmary*	1 to 5 *Infirmary*	1 to 5 *Infirmary*
2						
3						
4						
5						

Clinical Surgery 1:30 to 4 Thursday. Special courses to be announced.
1 Medical Amphitheatre. 2 Dental Amphitheatre. 3 Room 17.
4 Physiological Laboratory. 5 West Lecture Room.
Special Pathology and Oral Surgery, Jan. 3 to June 10, four hours per week.

COLLEGE OF PHARMACY

COLLEGE OF PHARMACY

FACULTY

GEORGE EDWIN MACLEAN, PH. D., LL. D.,
President of the University.

EMIL LOUIS BOERNER, PH. G., PHAR. D.,
Professor of Pharmacy and Dean of the Faculty.

LAUNCELOT W. ANDREWS, PH. D.,
Professor of Chemistry, and Director of the Chemical Laboratory.

THOMAS H. MACBRIDE, M. A., PH. D.,
Professor of Pharmacognosy, and Director of the Microscopical Laboratory.

CHARLES S. CHASE, M. A., M. D.,
Professor of Materia Medica.

BOHUMIL SHIMEK, C. E.,
Professor of Botany.

ELBERT W. ROCKWOOD, M. A., M. D.,
Lecturer on Toxicology.

WILBER JOHN TEETERS, M. S., PH. C.,
Assistant Professor of Pharmacy, and Director of Pharmaceutical Laboratory.

CARL VON ENDE, PH. D.,
Instructor in Chemistry.

ZADA M. COOPER, PH. G.,
Assistant in the Pharmaceutical Laboratory.

HARVEY H. LOCHRIDGE, B. S.,
Storekeeper in the Chemical Laboratory.

COLLEGE OF PHARMACY

The College of Pharmacy of the State University of Iowa is designed to furnish pharmacists, and those desiring to engage in pharmacy, an opportunity to acquire a thorough practical education in the sciences most intimately connected with the practice of that profession. A technical education, such as that offered by the colleges of pharmacy, and seldom if ever acquired in drug stores, is as necessary to the accomplished pharmacist as is the special training of a medical course to the physician. The day is not far distant when the pharmacist who is not provided with the evidence of skill which the college diploma furnishes, will labor under equal disadvantages with the uneducated physician of today.

The experience of the past fifteen years has thoroughly demonstrated the practical nature of the courses in this College. This is shown by the readiness with which students of even one session find and hold employment in drug stores at salaries much higher than they could possibly command without the college training, and by the fact that a much larger percentage of students who have completed one year's work in this college pass the examinations before the State Board of Pharmacy than of candidates who go before the Board from drug stores, even after several years' experience.

Incidentally, therefore, the courses are well calculated to aid those who desire specially to qualify for the examinations of the State Board of Pharmacy.

It is the aim of the faculty to make the courses so practical that students will find it not only professionally but also pecuniarily profitable to pursue a course of study in the college.

Sec. 2589 of the Code, relating to the registration of pharmacists, was amended by the Legislature on March 26, 1898, to read as follows:

"Sec. 2589. Examinations—registration. The commission, at such times and places as it may select, and in such manner as it may determine upon, shall examine all persons desiring

to engage in and conduct business as registered pharmacists, as contemplated in the preceding section, and, if found competent, the applicant's name shall be entered in the registry book of certificate holders. Graduates of Pharmacy holding a diploma from the State University, or from any school or college of pharmacy requiring a course of study and laboratory work equivalent to that prescribed by the said University in its catalogue for the school year 1897–98, shall be entitled to registration as pharmacists without examination. Pharmacists thus registered have the sole right to keep and sell all medicines and poisons, except intoxicating liquors."

The seventeenth annual course of lectures will begin on Wednesday, September 24, 1902.

BUILDING

This college is comfortably located in a three-story building erected at a cost of about fifty thousand dollars, and furnishing about twenty-five thousand square feet of floor space, perhaps the largest accommodations in the way of room enjoyed by any college of pharmacy in this country. The equipment of this building is of the most modern type and is in keeping with the development of the science. Through liberal appropriations periodically made by the Legislature and Board of Regents, this equipment is being constantly enlarged, and affords excellent facilities for instruction. The lecture rooms are provided with all desirable conveniences for class demonstration, and with tablet chairs. The laboratories are especially roomy, the chemical and pharmaceutical laboratories each occupying a floor space of 54x140 feet, which is divided into a large general laboratory and smaller rooms for special research. Two forty horse-power boilers supply the steam for all purposes, and a seven horse-power gas engine furnishes the power for drug mill, dynamo, etc.

REQUIREMENTS FOR ADMISSION

Each applicant for admission must present to the faculty a satisfactory certificate of good moral character.

The following classes of applicants may be admitted to junior standing without examination:

1. Graduates or matriculates of reputable universities or colleges who present diplomas or certificates of honorable dismissal from such universities or colleges.

2. Graduates of state normal schools, of accredited high schools or academies, or of other secondary schools whose courses of study are approved by the University, who present diplomas or certificates showing such graduation.

3. Pupils who have only partially completed the course of study of a state normal school, accredited high school or academy, or other secondary school whose course of study is approved by the University, upon presentation of certificates signed by the Superintendent or the Principal and containing specific statements as to the amount of work done in each study pursued. This certificate should be made on a blank which can be obtained on application to the President of the University or the Dean of the College of Pharmacy.

4. Holders of a first class County Teacher's Certificate which entitles them to teach two years from the date of issuance and which includes grades in Algebra, Arithmetic, Physics, Physiology, English Grammar, United States History, Civics, and Economics.

All other applicants may be admitted only on passing examinations in the subjects named in the programme of entrance examinations given below.

It is urged that any one expecting to enter the College of Pharmacy next September send all certificates of preparatory work to the University Examiner as early in the summer as possible, and certainly before September 1. If the credentials are satisfactory a card of admission will be sent to the applicant at once. Upon arriving in the city he should present this card to the Dean for signature.

Admission to the senior class is gained by passing an examination in the branches of study taught during the junior year. Students presenting evidence of having passed the junior examination in another recognized college or school of pharmacy will be admitted without examination.

For September, 1903, applicants for admission must present evidence of at least two years' work in an accredited high school or equivalent institution.

Notice is also given in this connection to the effect that the requirements for admission are to be still further extended in subsequent years.

ENTRANCE EXAMINATIONS

Any person expecting to enter the College of Pharmacy in September, 1902, should be careful to learn before the opening of the University exactly what entrance examinations he will be required to pass. He can learn this by addressing the President of the University, the Dean of the College of Pharmacy, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present at his first examination as indicated in the programme given below. He should present himself at once at the office of the University Examiner, who will give all necessary directions.

For each *separate* examination given at any other time than that announced in the following programme, a fee of *two dollars* will be charged by the University.

PROGRAMME OF ENTRANCE EXAMINATIONS

TUESDAY, SEPTEMBER 23, TO WEDNESDAY, SEPTEMBER 24, 1902

Arithmetic,	1 credit,*	Tuesday,	8:00 a. m.
English and Eng. Grammar,	2 credits,	Tues.,	11:00 a. m. and 4:30 p. m.
		Wed.,	11:00 a. m. and 4:30 p. m.
United States History,	1 credit,	Tuesday,	1:30 p. m.
Algebra (to quadratics)	2 credits,	Wednesday,	8:00 a. m.
†Physical Geography,	1 credit,	Wednesday,	11:00 a. m.
†Botany,	1 credit,	Wednesday,	3:00 p. m.
†Physiology,	1 credit,	Wednesday,	4:00 p. m.

N. B.—The applicant may choose *either one* of the subjects designated by the †.

Penmanship will be judged from the manuscripts presented.

* A credit is the equivalent of one high school study *five* times a week for a term of *eighteen* weeks on the basis of *four* studies a day.

OUTLINE OF THE PLAN OF INSTRUCTION

The courses of instruction embrace lectures on Pharmacy, Materia Medica, Pharmacognosy, Botany, Chemistry, and Toxicology, with daily practical work in pharmaceutical, microscopical, and chemical laboratories, and recitations during the term. More than five hundred and eighty lectures are delivered annually to the junior students, and they devote six hundred and forty hours to laboratory practice. Three hundred and fifty lectures are delivered annually to the senior students, and they devote more than seven hundred hours to work in the several laboratories.

PHARMACY

PROFESSOR BOERNER; ASSISTANT PROFESSOR TEETERS, MISS COOPER

1. The introductory lectures in this course will embrace a short review of the history and development of Pharmacy and Pharmacy Laws. The Pharmacopœias of the United States, England, France, and Germany, and the various systems and appliances of weights and measures in use by the leading nations will receive detailed attention. Specific gravity will be considered, the principles explained, and its application to Pharmacy illustrated by experiments. Among the numerous practical subjects that will receive due attention are the following: Heat, its sources, uses, control, and application in Pharmacy as exemplified in the use of furnaces, stoves, burners, drying ovens, sand, water, oil, glycerine, paraffin, air and steam baths; the processes of evaporation, distillation, sublimation, fusion, dessiccation, calcination, carbonization, ignition, etc. The following processes will receive the attention which their importance demands: Comminution, solution, precipitation, crystallization, dialysis, clarification, filtration, granulation, maceration, percolation, expression. This course will close with consideration of the methods and processes employed in

the preparation of pills, powders, triturations, masses, confections, tablets, troches, suppositories, cerates, ointments, plasters, etc.

Junior year, four lectures and one recitation each week, first semester and first term second semester. Professor BOERNER.

2. PHARMACEUTICAL MATHEMATICS. — The aim of this course is to teach the student to use easily and accurately the various weights and measures; the relation of one system to another in comparison with a common standard; the mutual relation of weight and volume; the calculation of strength and proportions in making pharmaceutical preparations or the dilution or fortification of substances to obtain any required result; the computation of dosage.

Junior year, one recitation each week during first semester. Miss COOPER.

3. This course is devoted to a critical study of the galenical preparations of the United States Pharmacopœia by classes, embracing waters, solutions, syrups, honeys, mucilages, emulsions, mixtures, glycerites, spirits, elixirs, collodions, liniments, oleates, infusions, decoctions, tinctures, wines, fluid extracts, oleo-resins, vinegars, extracts, resins, etc.

Junior year, four lectures and one recitation each week. Second term, second semester. Professor BOERNER.

4. In this course the student will make about 150 United States Pharmacopœia and National Formulary preparations, taking them up in a progressive order, illustrative of the various processes used in Pharmacy as referred to under Course 1. Each preparation is graded separately and required to meet a reasonable standard of quantity, quality, and strength. The instruction will embrace practice in the use of thermometers, hydrometers, specific gravity bottles, balances, etc. The preparation of hypodermic and compressed tablets, scale salts, pill masses, syrups, tinctures, fluid extracts, emulsions, suppositories, ointments, etc.

Junior year, laboratory course. Nine hours each week throughout the year. Assistant Professor TEETERS, and Miss COOPER.

5. Instruction by means of a quiz class is given covering difficulties likely to be encountered in laboratory work. The composition of the various preparations, with chemistry involved, and the reasons for each step in their manufacture will receive careful consideration.

Junior year, two hours each week throughout the year.

Senior year, one hour each week throughout the year. Assistant Professor TEETERS.

6. This is a continuation and elaboration of course 2, in which all of the official preparations of a drug are considered together, contrasted or compared with those of similar name or nature recognized by Pharmacopœias of leading nations or extensively used.

Senior year, four lectures and one recitation each week. First term, first semester. Professor BOERNER.

7. This course will consist of the manufacture of about seventy five preparations selecting the more difficult galenicals from the U. S. Pharmacopœia and National Formulary and will include the preparation of many chemicals which the Pharmacist should and can prepare for himself with both advantage and profit.

Senior year, laboratory course. Nine hours each week, first semester. Assistant Professor TEETERS and Miss COOPER.

8. This course will deal with the consideration in detail of the pharmacy of all inorganic drugs and preparations of the U. S. P., embracing the inorganic acids, the preparations of chlorine, bromine, iodine, sulphur, phosphorous, carbon, boron, silicon, potassium, sodium, lithium, ammonium, magnesium, calcium, barium, strontium, zinc, aluminum, cerium, manganese, iron, chromium, lead, copper, silver, mercury, antimony, arsenic, bismuth, gold, and platinum.

Senior year, four lectures and one recitation each week. Second term, first semester. Professor BOERNER.

9. The lectures of this course deal entirely with the pharmacy of the organic materia medica. The official drugs will be considered by groups, the classification being based upon the more prominent proximate constituents of plants, beginning with those substances containing prominently lignin and passing in order to those containing starches, sugars, gums, resins, oleo-resins, fixed oils, volatile oils, alkaloids, glucosides, neutral principles, etc. The plan of classification admits of the study of those derivative products useful as menstrua and contained in subsequently considered preparations such as the alcohols, ethers, chloroform, etc. early in the term. Animal drugs and products will receive due attention.

Senior year, four lectures and one recitation each week. First term, second semester. Professor BOERNER.

10. In order to properly equip the pharmacist for his work, several short courses in special practical subjects will be given embracing the assay of drugs; the qualitative and quantitative determination of the constituents of normal and pathological urine and a microscopic examination of deposits; the analysis of gastric juice, milk, and water.

Senior year, combined lecture and laboratory course. Nine hours each week. First term, second semester. Assistant Professor TEETERS and Miss COOPER.

11. This course will have especially in view practical application of knowledge gained in previous courses and will consist in applying U. S. P. tests for identity and detection of impurities in drugs; the determination of strength of official preparations made by junior students; the detection of adulteration of food; the compounding of prescriptions under careful individual instruction at the prescription counter, illustrative of chemical, pharmaceutical and physiological incompatibility.

Senior year, laboratory course. Nine hours each week. Second term, second semester. Assistant Professor TEETERS and Miss COOPER.

12. This course will be devoted to advanced pharmacy and will, in connection with the laboratory courses in pharmacy, have for a special aim the fitting of the student for the responsibility of conducting a pharmacy. Magistral or extemporaneous pharmacy, including that long list of unclassified processes incident to counter and prescription work, will receive special attention. The application of processes considered in courses 1, 2 and 3 will be a special feature of this course. The subject of incompatibility in prescriptions, prescription difficulties, and the adulteration and sophistication to which drugs and medicines are subject will be noticed to the extent which their importance demands. The stereopticon will be freely used in the study of autographic and difficult prescriptions. Lectures on the commercial side of pharmacy, relating especially to the fitting out of drug stores, buying and selling, the successful conduct of the pharmacy, etc., will conclude the course.

Senior year, four lectures and one recitation each week. Second term, second semester. Professor BOERNER.

CHEMISTRY

PROFESSOR ANDREWS; DR. VON ENDE, MR. LOCHRIDGE

The laboratory work is divided into two distinct courses, both of which are requisite for graduation, but only one of which can be taken by the student during either of the two college years.

JUNIOR YEAR—The junior year comprises instruction in the general principles of chemistry, and in qualitative analysis, arranged with special reference to pharmaceutical preparations.

The lectures elucidate the fundamental laws of the science, demonstrating them whenever possible, by numerous experiments performed before the class. The chief metallic and non-metallic elements with their more important compounds and reactions are considered. The practical application of the principles of chemical calculation, by which the composition of compounds may be deduced from their formulas, in consequence of its great importance to the pharmacist, is carefully inculcated. Instruction in details of the work and in matters of manipulation is conveyed in the laboratory course, which occupies, on an average, seven hours a week. Here the student is taught by a systematically arranged series of experiments the properties of the commonest chemical agents, and how to handle chemical apparatus properly. When some manipulative skill is attained, qualitative analysis is taken up. The characteristic reactions of bodies as applied to their detection in mixtures are made familiar in a series of examples, beginning with the simplest substances and passing gradually to the more complex, such as are met with in the practice of pharmacy. The student is expected at the conclusion of this course to be able to test the purity of official preparations and to detect the nature of any adulteration which may be present. He is required to pass a practical examination covering this ground.

SENIOR YEAR.—An introductory course of lectures on organic chemistry, accompanied by laboratory practice in organic preparations. Quantitative analysis is taken up, particular emphasis being laid upon volumetric processes, as these, by virtue of the ease and rapidity with which they are executed, are of the greatest general usefulness.

The chemical reactions used for detecting morphine, strychnine, and other alkaloidal and coal tar products of pharmaceu-

tical importance are studied in the laboratory, and the class is given practice in the practical analysis of mixtures of such substances.

Practice is also given in the valuation of numerous inorganic and organic pharmaceutical preparations and in the methods of controlling or determining their exact strength. A laboratory examination concludes the course.

PHARMACOGNOSY

PROFESSOR MACBRIDE

This course is intended to present the organic Materia Medica from the standpoint of the biologist, with a view to enabling the student to handle his materials intelligently and to identify them in accordance with the recognized principles of biologic science. The various drugs of organic origin are taken up in the order of their natural classification, the principal facts as to their nature, origin, and preparation are set forth in a series of lectures illustrated by abundant material in original packages, as well as by herbarium specimens (in the case of plants), charts, drawings, microscopic preparations, etc.

For seniors only. Throughout the year. Two hours each week.

Ample cabinets of Materia Medica are at hand, and free use is constantly made of the magnificent collections now found in the Herbarium of the University.

Text-Books: Flueckiger's *Principles of Pharmacognosy;* Maisch's *Materia Medica;* Bentley and Trimen's *Medicinal Plants;* Millspaugh's *American Medicinal Plants; The United States Dispensatory; The National Dispensatory.*

BOTANY

PROFESSOR SHIMEK

Three courses are offered in Botany:

1. This course is devoted to an inquiry into the life and growth of the plant. Special attention is given to the various products of the plant-cell which are revealed by the microscope, and their source, mode of formation, and purpose are discussed. The course includes laboratory work with the microscope, and evening lectures illustrated by stereopticon views.

Junior year, first semester. Two hours each week.

2. GENERAL BOTANY.—This course is devoted to a careful study of the elements of the science. The various organs of the plant are reviewed and the local flora is made to afford abundant material to illustrate, in the hands of the student, the morphology of roots, stems, and leaves, as well as the ordinary principles of floral analysis, and the means of specific identification. Types of the principal orders of greatest economic value are studied in detail, and special attention is given to the spring medicinal flora. In order that the student may also acquire some familiarity with the rich autumnal flora this course is continued for four weeks in the first semester of the senior year.

Junior year, second semester. Two hours each week.

3. MICROSCOPIC TECHNOLOGY.—This course includes instruction in the use of the compound microscope, and its employment in the investigation of vegetable structures. The student is supplied with an instrument and all necessary reagents and apparatus, and is taught the various modes of cutting, staining, and mounting histological preparations. Practical instruction is given in the use of the microscope in the identification of crude drugs, as well as in the detection of adulteration. Each student taking this course prepares at the laboratory for his own use a cabinet of microscopic slides, illustrative of many of the more important official drugs.

Senior year. Two hours each week, throughout the year after the first four weeks.

MATERIA MEDICA

PROFESSOR CHASE

1. A knowledge of the *action of drugs* can be obtained by the student of pharmacy only by empirical or rational methods. The former being based upon clinical observation of their uses is obviously beyond his reach. The latter, or rational method, then is the only one that is feasible. This being based upon the observed or known action of drugs upon living animal cells, tissues, organs, apparatuses, etc., it is necessary that the student should be given at least an elementary course in Physiological Materia Medica. To this end the first weeks of the course in Materia Medica are devoted to familiarizing the stu-

dent with such anatomical structures and their functions as are most nearly related to the subject of drugs and their action.

Junior year. One hour each week, first term, first semester. Professor CHASE.

2. After the preceding course the student is given preliminary definitions of the subject; also the definition of such terms as alkaloids, leucomaines, ptomaines, etc. The various official preparations are defined and discussed. The routes and modes of administration of remedies, and their physiological and toxicological action are likewise considered. The subjects of dosage and incompatibilities as related to prescription-writing, are presented; the former finally, the latter begun, to be continued as a parallel study in the consideration of individual drugs.

Junior year. One hour each week, second term, first semester. Professor CHASE.

3. The origin, source, composition, chemical characteristics, physical properties, modes of preparation and of administration, and physiological and toxicological action of drugs of the organic Materia Medica are begun.

Junior year. One hour each week, second semester. Professor CHASE.

4. Continuation of the preceding course. The student is required to complete the transcription of the text, begun in the preceding course and used by him in his study, in a note-book specially prepared for such purpose, with a view to aiding his memory. He is also given drill in prescription-filling and interpretation. The organic Materia Medica is thus completed.

Senior year. One hour each week, first semester. Professor CHASE.

5. Serum-therapy, Antitoxins, Organic Extracts, Vaccine-virus, etc., will furnish topics to be specially considered in this course. These topics and the subjects of Emergencies, and First-Aid-to-the-Injured, and how they may be met by the pharmacist in the absence of the physician, with a final review will conclude the entire subject.

Senior year. One hour each week, second semester. Professor CHASE.

TOXICOLOGY

DR. ROCKWOOD

The general action of poisons is first considered, then the most important poisons are treated separately. Their phys-

ical properties and chemical action are noticed, together with their uses, and most common sources of poisons as toxicological agents. The symptoms of the different classes are given, and the treatment for each. Especial attention is paid to antidotes. Methods of testing suspicious substances, as well as the examination of secretions and excretions, are explained and illustrated by experiments.

Senior year. One lecture each week, throughout the year.

PHARMACY LAW

Professor H. S. Richards, of the College of Law, will deliver a short course of lectures treating of the validity and construction of laws especially restraining the practice of pharmacy; of the liability of pharmacists both criminal and civil, for their own violations of laws and that of their agents, also for their own negligence and that of their agents. Second semester.

QUALIFICATIONS FOR GRADUATION

Every person upon whom the diploma of this College is conferred must be of good moral character, must have arrived at the age of twenty-one years, must have attended two full courses of lectures, including two full courses of pharmaceutical, microscopical, and chemical laboratory practice, the last one of which shall have been in this College, and must pass satisfactory written examinations in all the branches taught in this College. He will then be entitled to the degree of Graduate in Pharmacy (Ph. G.).

FINAL EXAMINATIONS

The examinations of candidates for graduation will take place during the week preceding the close of the lecture season.

TEXT-BOOKS

Pharmacy—For juniors: *U. S. Pharmacopœia*, Remington's *Practice of Pharmacy*, *National Formulary*. For seniors: All the above, Caspari's *Treatise on Pharmacy*, Coblentz's *Handbook of Pharmacy*, Scoville's *Art of Compounding*.

Chemistry—*Pharmaceutical and Medical Chemistry* by Sadtler and Coblentz.

Pharmacognosy—Maisch's *Organic Materia Medica.*

Materia Medica—White and Wilcox's *Materia Medica and Therapeutics*, Sayre's *Organic Materia Medica and Pharmacognosy*, Culbreth's *Materia Medica and Pharmacology.*

Botany—Macbride's *Lessons in Elementary Botany*, Gray's or Wood's *Manual.*

REFERENCE BOOKS

U. S. Dispensatory, *National Dispensatory*, Fresenius's *Analytical Chemistries*, Hoffman and Power's *Examination of Medicinal Chemicals*, Gray's *Botanical Text-Book*, Vol. II.

PRIZES

By the liberality of Mr. John M. Lindly, a prize consisting of Britton & Brown's Illustrated Flora is offered to the student of the senior class who shall bring from his home county the best herbarium of not less than fifty plants. The candidate before receiving the prize must become a member of the University Pharmacy Alumni Association, and the collection shall become the property of Mr. Lindly.

TUITION

The fee for tuition is $75 for each year, of which $50 is payable on entering and the remainder at the beginning of the second semester. There are no extra fees whatever, but for each laboratory course in chemistry or practical pharmacy there is required a deposit of $3 to cover breakage and to insure the return of all keys at the close of the session. This sum (breakage, if any, deducted) is returned to the student on presentation of the certificate of the professor in charge of the laboratory in question.

The above statement of fees is now in effect and will be understood to apply to all students in the College, entirely irrespective of the date of matriculation.

All students who are delinquent in the payment of tuition will be suspended from the College until the tuition is paid.

WEIGHTS AND MEASURES

The State standards of weights and measures are kept at Iowa City, under the direct supervision of L. G. Weld, Professor of Mathematics and Astronomy, and Dean of the Graduate College.

MUSEUM

Pharmacists of the State are requested to send to Mr. Wilber J. Teeters, Director of the Pharmaceutical Laboratory, curios, such as old books, old prescriptions, old apparatus, or other material that will indicate, for educational purposes, the history and progress of Pharmacy in Iowa. All such contributions will be prominently displayed in cabinets provided for the purpose and labeled with the names of the donors.

READING ROOMS

Reading and reference libraries are maintained in connection with the chemical, botanical and pharmaceutical laboratories. In the latter, the leading current drug journals are kept on file.

E. L. B. CLUB

The E. L. B. Club, the scientific society of the College, was organized in 1901 to give opportunity for the discussion of subjects of general and practical interest to pharmacists. Meetings are held every two weeks and all the students of the College become members by signing the Constitution. It offers social and intellectual advantages and practice in public speaking.

For further particulars address Emil L. Boerner, Dean of the College of Pharmacy, Iowa City, Iowa.

ALUMNI ASSOCIATION

The Alumni Association takes a deep interest in the work of the College. Yearly meetings are held on Commencement Day and the proceedings of the Association are published together with the register of Alumni. Officers for 1901-02 are:

President—A. F. KOCH, Middle Amana.

First Vice President—R. H. GATES, Waterloo.

Second Vice President—MRS. LILLIE E. REYNOLDS, Parral, Chihuahua, Mexico.

Recording Secretary—W. L. WATTERS, Wellman.

Corresponding Secretary—J. M. LINDLEY, Winfield.

Treasurer—J. S. MUTCHLER, Iowa City.

Executive Board—W. F. JUNGER, Reinbeck; W. F. MILLER, Homestead: ZADA M. COOPER, Iowa City.

Alumni are requested to keep the Secretary informed of change of address.

STUDENTS IN ALL THE COLLEGES

THE COLLEGE OF LIBERAL ARTS

DEGREES CONFERRED JUNE, 1901

BACHELOR OF ARTS

Alden, Harry Francis
Barton, Harry Raymond
Buffum, Hugh Straight
Burrus, James Harvey
Burton, Harry Edward
Carson, Mabel E.
Cook, Roy Arthur
Downing, Ralph Vernon
Gow, Annie Louise
Hruska, Victoria
Johnson, Jessie Florence
Jorgensen, James Edwin
McClain, Donald
McCord, Charles Joseph
McKenzie, John Augustus
Moore, Lina Haviland
Moore, William Franklin
Page, Clarence Vernon
Plock, Henrietta Dorothy
Reid, Frank Beatty
Russell, Earl Willard
Soesbe, Clarence William
Swisher, Esther McDowell
Willett, James Horace

BACHELOR OF PHILOSOPHY

Anderson, Laura
Arnold, Henry Stephen
Bailey, Frank Sidney
Ball, George Washington, Jr.
Bannister, Robert James
Bechley, Edward
Boardman, Benjamin
Boler, John
Bond, Ethel May
Briggs, Fletcher
Brockway, James Madison
Carroll, Elizabeth Fawcett
Chantry, Lillian
Collins, Frank Butler
Converse, Charles Crozat
Cooper, Elizabeth Janette
Cox, Clifford Vernard
Dodds, Calvin Stewart
Drake, Fred Collins
Fesenbeck, John Alvin
Gilchrist, Janet Marjorie
Gow, James Ellis
Griffith, Harry Melvin
Hershire, Mildred
Johnson, Kitty May
Kelley, Rita Amanda
Kephart, Milton Lawrence
Kingland, Thomas Andrew
Kuck, Orlando Adolph
Laartz, Christian H.
Lodwick, Deca
Lovell, Guye E.
McCulla, Walter Philo
McGee, Alice Florence
Merriau, Fred Simmons
Miller, John William, Jr.
Pearson, Abby Belle
Perkins, Daniel R.
Remley, Arthur L.
Remley, George Edwin

Rider, Etta Jane
Savage, Harry Harper
Scales, Richard Elmo
Shaw, James Daniel
Slavata, Jennie Elizabeth
Sterling, Editha Hortense
Waller, Mary Ethel
Willis, Bertha Belle

BACHELOR OF SCIENCE

Bond, Perry Avery
Brackett, Otto Thomas
Branson, Mrs. Laura House
Burrier, Emmett Francis
Clapp, Mortimer Edwy
Cogswell, Charles Herbert, Jr.
Dye, Charles Wesley
Gleason, Fred Brockway
Griffith, John George
Hanson, Frank F.
Hoffman, Paul McConnell
Howard, Alice Harriet
Hurst, John Francis
Johnson, D. Powell
Lambert, Charles Irwin
Mantz, Frank Jesse
Norton, Florence
Rue, Lars O.
Stover, Bessie Esther
Umberger, Thomas Daniel Terrill
Warren, Madison Clyde
Williams, Samuel Clyde
Yule, Edgar Harrison

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Hickenlooper, Thomas Wallace
Jensen, Frank Thomas
Lambert, Byron James
Rice, Stephen Edward
Smith, Charles Horton
Weeks, Gaylord D.

BACHELOR OF DIDACTICS

Lindeman, Frank

The following students completed the requirements later and have been recommended by the Faculty to the Board of Regents for degrees as indicated:

BACHELOR OF PHILOSOPHY

Ede, Ernest D.

BACHELOR OF SCIENCE

Bailey, Frederick William
Paarman, Juergen Herman
Rosser, Bert Paul

SENIORS

Abbott, Frederick Hiram	Cl.	Iowa City
Abernethy, Clara Louise	Cl.	Osage
Achenbach, Naomi,	Ph. B,	Gladbrook
M. Di., '00, Iowa State Normal.		
Allen, Henrietta Frances	Sci.	Allenwood, Pa.
Allen, Ray Wallace	Sci.	Waterloo
Anthony, Charles Henry	Sci.	Iowa City
Bailey, Katherine Ethel	Cl.	Iowa City
Barber, Myrtle	Ph. A.	Estherville
Barr, William Milton	Sci.	Britt
Barrett, Anna Moore	Ph. A.	Iowa City
Bell, William B.	Cl.	Milton
M. Di., '99, Iowa State Normal.		
Bemis, Frances Perl	Ph. A.	Estherville
Boddy, Marshall Vincent	Ph. B.	Spencer
Boehm, Walter Martinus	Sci.	Ft. Dodge
Bozarth, Maud,	Ph. B.	Cedar Falls
M. Di., '99, Iowa State Normal.		
Brackett, Merritt	Cl.	Iowa City
Burrier, Emmett Francis,	C. E.	Farmington
B. S., '01.		
Butler, Lindley Moses	Ph. A.	Forest City
Byrnes, Ralph Leonidas	Sci.	Iowa City
Carder, Helen L.	Ph. A.	Iowa City
Casady, Thomas	Cl.	Des Moines
Clearman, Rollen Ives	Ph. B.	Iowa City
Close, Katherine Stevens	Ph. A.	Iowa City
Collins, Edward Robert,	Sci.	Bloomfield
B. S., '95, Southern Iowa Normal.		
Cory, Charles Seldon,	Sci.	Fredericksburg
M. Di., '00, Iowa State Normal.		
Currier, Albert Moore	Cl.	Iowa City
Davis, Florence Mabel	Ph. A.	Sioux City
Dayton, Leona Mellie	Ph. B.	Waukon
Delavan, George Edwin, Jr.	Cl.	Estherville
DuBois, Walter Lynn	Sci.	Rockwell City
Dykstra, Sylvester Henry	Cl.	Pella
Eberhart, Frank Vaughan	Sci.	Newton
Eller, Chester John	Ph. B.	Pekin
Emry, Frederic Grant	Ph. B.	Brighton
Espeset, James Howard	Ph. B.	Estherville

Estes, Reuben Marion,	Ph. A.	Thurman
B. Di., '00, Iowa State Normal.		
Ewers, Albert Francis,	Sci.	Albia
M. Di., '00, Iowa State Normal.		
Fairall, Herbert Snowden, Jr.	Sci.	West Superior, Wis.
Farrell, Thomas	Cl.	Fonda
Filer, Paul Schenck	Cl.	Parkersburg
Fitch, Eva Lillian	Cl.	Lytton
Fitch, Harry Holland	Cl.	Lytton
Ford, D. Fae	Ph. B.	Manchester
Funson, Harry Shugart	Ph. B.	Nevada
Geyer, Ellen	Ph. B.	Cedar Rapids
Giese, Charles Oscar	Ph. B.	Pleasant Grove
Graham, Joseph W.,	Cl.	Mechanicsville
M. Di., '95, Iowa State Normal.		
Grillet, Ida Louise	Sci.	Sioux City
Hayler, George Rex	C. E.	Ft. Dodge
Henry, Carl Jeffrey	Ph. B.	Butler, Mo.
Henry, Ward Casady	Cl.	Des Moines
Hollenbeck, Henry Stanley	Cl.	Sheldon
Hoover, Alden Robbins	Sc. & M.	Muscatine
Hull, Pearl	Ph. A.	Iowa City
Huntington, Harry Garfield	Ph. B.	Onawa
Johnson, Henry Charles	Ph. B.	Greene
Johnson, Joel Ernest,	Ph. B.	Marathon
M. Di., '00, Iowa State Normal.		
Joy, Florence Livingston	Ph. A.	Iowa City
Kent, Grace Helen	Cl.	Victor
Kierulff, Anna Edwards	Ph. A.	Montezuma
Kingsbury, Maud Cleaveland	Ph. B.	Iowa City
Kirby, James Francis	Ph. B.	Williamsburg
Krause, Charles Schutz	Sc. & M.	Garwin
Lorenz, Charlotte Marie	Cl.	Burlington
Lowman, Stella Elizabeth G.	Ph. A.	Iowa City
Luhman, Frederick Henry	Ph. B.	Postville
McCutchen, Lydia May	Cl.	Rock Rapids
McVay, Albert Dennis	Ph. B.	Iowa City
MacKellar, Jennie Edith,	Ph. B.	Washburn
M. Di., '00, Iowa State Normal.		
Macy, Clarence Spencer	Sci.	Adel
Manhard, Edward	C. E.	Farmington
Mark, John H.	Cl.	Grand Meadow, Minn

Marsh, Richard Dana	C. E.	Marshalltown
Martin, John Weston	Cl.	Fonda
Mather, Rachel Evans	Ph. A.	Springdale
Maudlin, Mina May	Cl.	Ladora
Mead, Ray C.	Ph. A.	San Luis Obispo, Cal.
Mehaffy, James Henri	Ph. B.	Morning Sun
Mehaffy, John Milton	Ph. B.	Morning Sun
Mingus, Edna M.	Cl.	Iowa City
Minkel, Lewis Herman,	Ph. B.	Dysart
M. Di., '95, Iowa State Normal.		
Moler, Margaret Imo	Ph. B.	Iowa City
Mueller, Eugene Fred	Cl.	Denison
Mueller, Mary Theresa	Ph. A.	Iowa City
Otto, Lucia Caroline	Ph. A.	Iowa City
Parsons, Ella Beckley	Ph. B.	Iowa City
Peterson, Nina Margarethe	Ph. B.	Evanston, Wyo.
Quigley, Sarah Ruth	Ph. A.	Iowa City
Randall, Frank Hall	Cl.	Denison
Randall, Otis,	Ph. B.	De Soto
M. Di., '97, Iowa State Normal.		
Remley, Alfred G.	Ph. B.	Anamosa
Reppert, Emma Le Maitre	Cl.	Burlington
Resser, Jesse	Ph. B.	Perry
Rhynsburger, Henry John	Ph. B.	Pella
Rich, David W.	Cl.	Wayland
Roberts, Carl Eckley	Cl.	Butler
Seerley, Florence	Ph. A.	Burlington
Silvius, Reuben Andrew	Ph. B.	Hampton
Smith, Mabel Clare	Cl.	Harlan
Speidel, Homer Vincent	Sci.	Iowa City
Stein, Lollie Alvine	Ph. A.	Burlington
Storck, Arthur Herman	Sci.	Earlham
Storey, Leslie	Ph. B.	Iowa City
Stuart, Clara	Ph. A.	West Branch
Sunier, Fanny Annette	Ph. B.	Iowa City
Switzer, Grace Ellen Elizabeth	Ph. B.	Iowa City
Truman, Emma Victoria	Ph. B.	Sloan
Tulloss, Carolyn M.	Ph. A.	Iowa City
Weber, Frederick Henry	Ph. B.	Mt. Pleasant
Williamson, Ralph Clinton	Ph. B.	Iowa City
Willis, Faith Gertrude	Ph. B.	Iowa City
Wilson, Mary Alwilda	Ph. B.	Shenandoah

JUNIORS

Albert, Fred, Jr.	Ph. B.	Reinbeck
Anderson, Rudolph Martin	Ph. B.	Iowa City
Black, Anna Bell,	Cl.	Shellsburg
M. Di., '00, Iowa State Normal.		
Brown, Maud Anna	Ph. B.	Marengo
Burmeister, August Otto	Ph. B.	Adair
Carlson, Ernest Emil	M. E.	Battle Creek
Carter, Edward Albert	Ph. B.	Muchakinock
Charlton, Max Rosecrans	Sci.	Clear Lake
Choate, Rufus Clark	C. E.	Iowa City
Clapp, Albert Carpenter	Sci.	Shelby
Coast, William Oscar	Sci.	Iowa City
Conley, Agnes Mercedes	Ph. A.	New Hampton
Cooper, Esther Leiper	Ph. B.	Winterset
Cory, Mrs. Charles Seldon,	Ph. B.	Fredericksburg
B. Di., '00, Iowa State Normal.		
Cronin, Sarah Elizabeth	Sci.	Marcus
Curtis, Alice Bertha,	Ph. B.	Allison
B. Di., '96, Iowa State Normal.		
Dakin, Amy Dorothy	Ph. B.	Mason City
Dalton, Ula Elizabeth	Cl.	Jesup
DeBusk, William Hayden	Cl.	Panora
Doran, Thomas Cyrus	Sci.	West Burlington
Drewry, Ray Forest	Ph. B.	Sac City
Dykstra, Clarence Addison	Cl.	Pella
Eaker, Jay Felts	Cl.	Pella
Edmondson, Charles Howard	Ph. B.	Milton
Elliott, Ethel Anna	Cl.	Marshalltown
Fenton, Jennie Inez	Ph. B.	Eldora
Fish, James Wilson	Ph. B.	Britt
Gardner, Frances Maud	Cl.	Avoca
Gay, Anna May	Cl.	Iowa City
Hanson, Clarence Henry	Sc. & M.	Ft. Dodge
Hardman, Roy Cordis	C. E.	Tipton
Hayes, Elenora Byington	Cl.	Villisca
Heard, Mary Kathrina,	Ph. B.	North East, Pa
Ph. C., '92, University of Michigan.		
Hill, George Edgar	Ph. B.	Burlington
Hossfeld, Eleanor	Ph. B.	Clermont
Hutchison, George Gaylord	Ph. B.	Lake City
Jarvis, Carolyn Belle	Ph. A.	Burlington

Johnson, Eliza Love	Sci.	Iowa City
Joynt, Martin John	Sc. & M.	Emmetsburg
Kampmeier, August	Cl.	Iowa City
Kelley, Edmund Levi, Jr.	Ph. A.	Lamoni
Kelley, Richard Carlyle	Cl.	Lamoni
Kemmerer, Charles Tilghman	Ph. A.	Eldridge
Kemmerer, Leila	Ph. A.	Eldridge
Kemmerer, Sara Dorcas	Ph. A.	Eldridge
Krebs, Robert D.	Cl.	Cedar Rapids
Landers, John Clement	C. E.	Webster City
Lauer, Ada Lucile	Cl.	Winfield
Lauer, Arnold William	Ph. A.	Winfield
Loizeaux, Jennie Olive	Ph. A.	Des Moines
McClain, Henry Griffiths	Cl.	Iowa City
Macbride, Jean	Ph. B.	Iowa City
Martin, Katheryn	Ph. A.	Iowa City
Moravec, Agnes Emma	Ph. A.	Belle Plaine
Morton, Helen Louise	Ph. A.	Iowa Falls
Mueller, Otto Henry	Cl.	Iowa City
Murphy, Genevieve Beatrice	Cl.	Iowa City
Nugent, Francis	C. E.	Iowa City
Padmore, Julia Rachel	Cl.	Le Mars
Page, Charles Price	C. E.	Iowa City
Pierce, Juliette,	Ph. A.	Manchester
M. Di., '01, Iowa State Normal.		
Porter, Mary Montgomery	Cl.	Albia
Pratt, Harlow Munson	Sci.	Kalo
Pratt, Mrs. Margaret Allie Tobin	Cl.	Iowa City
M. Di., '00, Iowa State Normal.		
Preston, Clara Carlton	Ph. B.	Elkader
Quigley, Marjorie,	Cl.	Iowa City
B. Di., '00, Iowa State Normal.		
Reed, Ivy Leslie,	Ph. B.	Hepburn
M. Di., '03, Iowa State Normal.		
Roach, Lena	Ph. A.	Rock Rapids
Rule, Edward A.	Sci.	Des Moines
Scallon, Hubert William,	Ph. A.	Ackley
M. Di., '01, Iowa State Normal.		
Seymour, William I.	C. E.	Iowa City
Spangler, Harrison Earl	Ph. B.	Adair
Speidel, Ida Theresia	Sci.	Iowa City
Stover, Samuel Kirkwood	E. E.	Iowa City

Stryker, Clarence Andrew	C. E.	Creston
Swaggart, Luman Birch	Ph. B.	New Providence
Swartz, Raymond Hamilton	Cl.	Iowa City
Sweney, Marshall Charles	C. E.	Osage
Switzer, Katherine May	Cl.	Iowa City
Thomas, Seth	Ph. A.	Letrat, W. Va.
Trost, Frederick William	M. E.	Ottumwa
Walsh, John Graney	Sc. & M.	Perry
Ward, Martha Viola	Sci.	Montour
Wassam, Clarence Wycliffe, M. Di., '00, Iowa State Normal.	Ph. B.	Iowa City
Watson, Harry Chibnail	Cl.	Emmetsburg
Weber, Harry	Sci.	Mt. Pleasant
Welch, Hershey Samuel	C. E.	N. Platte, Neb.
Whitaker, Ralph Wallace	C. E.	Davenport
Whitley, Gladys Call	Cl.	Webster City
Wright, Charles Oliver	C. E.	Tipton

SOPHOMORES

Alford, Lore	Ph. B.	Waterloo
Bailey, Will Josiah	Ph. B.	Iowa City
Baker, Florence	Ph. B.	Eldon
Ballard, Mary Elizabeth	Ph. B.	Iowa City
Balle, Sophia Margaret	Ph. B.	Denison
Bartholow, Claude Alpheus	Sci.	Yale
Baughn, Wilmot Lawson	Sci.	Harlan
Beaulieu, Leo Victor	Cl.	Sheldon
Bedford, Lyman Daniel	Ph. B.	Hudson
Berryhill, James Guest, Jr.	Sci.	Des Moines
Blum, Daisy Pearl	Ph. B.	Rossville
Bosley, Roy Harrison	Ph. B.	Adair
Bowen, Jesse Clark	Sc. & M.	Maquoketa
Brackney, Herbert Winfield	Ph. B.	Washta
Brainerd, Frederick Goodrich	E. E.	Iowa City
Brainerd, Helen Louise	Ph. B.	Iowa City
Briggs, Charles Orin	Ph. B.	Red Oak
Brockett, Louise	Sci.	Des Moines
Bryson, Harold Lewis	Ph. B.	Troy Mills
Buckley, Fred Watson	Ph. B.	Shelby
Burgum, Harry Pitkin	C. E.	Oelwein
Clark, William Clarence	Sc. & M.	McGregor

Clearman, Albert Edward	C. E.	Iowa City
Coburn, Robert LeRoy	Sc. & M.	Carroll
Cogswell, John Wilkinson	Sc. & H. M.	Cedar Rapids
Confare, Bert	Ph. B.	Nevada
Crane, Ernest B.	C. E.	Dexter
Crawford, Tillie Jane	Cl.	Wellman
Cross, Cash R.	Sci.	Iowa City
Cushing, Raymond George	Cl.	Kirkman
Davis, Odin Royston	Ph. B.	Eldora
Diddy, Carl Foster	Ph. B.	Perry
Dixon, Frank Leslie	Ph. A.	Sheldon
Duff, Laura May	Ph. B.	Britt
Duggan, Abbie Lucy	Ph. A.	Sioux City
Dunlap, Fanny	Sci.	Ofallon, Mo.
Dye, Harvey Leroy	Sci.	Macedonia
Eddy, Mary Louise	Sci.	Marengo
Edgerton, Robert Henry	Ph. A.	Muscatine
Fagan, Ralph Mather	Ph. B.	Shelby
Fletcher, George Glick	C. E.	Marshalltown
Foster, Blanche Fairfax	Ph. B.	Iowa City
Foster, Charles Clarence	M. E.	Iowa City
Gates, Ernest H.	E. E.	Sheldon
Gordon, Mary Agnes	Ph. B.	Iowa City
Greene, Galen Edwin	Cl.	Greene
Hagler, Elisha Marion	C. E.	Milton
Hellberg, Will Fred	Ph. B.	Anamosa
Hermann, Cornelia Josephine	Ph. A.	Koszta
Hess, Adam Koingmacher	Ph. A.	Council Bluffs
Hodge, Lida Jane	Ph. B.	Indianola
Hoffman, Mabel V.	Cl.	Muscatine
Hofmann, Minnie	Sci.	Ottumwa
Hopkins, Floyd Frank	Ph. B.	Lamoni
Hosoda, Sachio K.	Sci.	San Francisco
Hulsebus, Bertha Margaret	Ph. A.	Burlington
Ivins, Harry Morgan	Sci.	Grundy Center
Jackson, Edwin Roy	Sci.	Avoca
Johnston, Edward Ray	Ph. B.	Iowa City
Jones, Edward Morris	Ph. B.	Iowa City
Jones, Neal	Sci.	Cantril
Kent, Carl Volney	Sci.	Marshalltown
Kern, Frank Dunn	Ph. B.	Reinbeck
Kingsbury, Cleaveland	Sci.	Iowa City

Kriechbaum, Bertha Emily	Ph. A.	Burlington
Kunz, John Franklin	Ph. B.	Wesley
Landers, Lou Cornelia	Sci.	Webster City
Lewis, Laura Iowa	Sci.	Macedonia
Lewis, Warren Herbert	Ph. B.	Lohrville
Lilly, Fanny Parmer	Ph. A.	Burlington
McCrory, Samuel Henry	C. E.	Ireton
McKinley, Mary Catherine G.	Ph. B.	Iowa City
McLaughlin, Eleanor	Ph. B.	Mason City
Magowan, Florence Nettie	Ph. B.	Tama
Matson, Samuel Barclay	Cl.	Kossuth
Matthews, Lillian Ruth	Ph. B.	Sioux City
Meakim, Roger Joseph	Sci.	West Burlington
Melzner, Arthur Burdell	Ph. B.	Yankton, S. D.
Merritt, Edith Whitney	Ph. A.	Iowa City
Moffatt, Burnam A.	C. E.	Marshalltown
Moler, Ida Muriel	Ph. B.	Kinross
Morris, Mary Makepeace	Ph. A.	Atlantic
Moulton, Lulu	Ph. A.	Maquoketa
Mulock, Edwin Hulbert	Sci.	Colfax
Murray, Mary	Ph. B.	Maquoketa
Newman, Clarence Adelbert	Ph. A.	Edgewood
Noel, Bruce Adrian	Sci.	Indianola
Peters, Alice Gilchrist	Ph. B.	Ottumwa
Rall, Carolyn Louisa	Ph. A.	Cedar Falls
Reherd, Mary Louise	Ph. B.	Geneseo, Ill.
Roberts, Jennie Ellen	Ph. A.	Iowa City
Royal, Malcolm Allen	Sc. & H. M.	Des Moines
Rundell, Mabel Anne	Ph. B.	Iowa City
Savage, John Elton	Ph. B.	Hebron
Scales, Alfred John	Ph. A.	Ackley
Schaefers, Rose Theresa	Ph. B.	Clermont
Schenck, Charles Plume	Sci.	Burlington
Smith, Alta Grace	Ph. B.	Harlan
Smith, Orpha	Ph. A.	Harlan
Spaudling, Edmund Holden, Jr.	Sci.	Westfield
Speidel, Mae Elizabeth Agnes	Ph. A.	Iowa City
Swire, Ethelind	Ph. B.	Iowa City
Taylor, Maud Estella	Sc. & M.	Iowa City
Thomas, Abram Owen	Ph. A.	Williamsburg
Thompson, Elizabeth	Ph. B.	Armstrong
Thompson, John Wesley	Cl.	Wapello

Valenta, Mrs. Emma Randall	Sci.	Iowa City
Veblen, Agnes Kari Anne	Cl.	Iowa City
Veblen, Gertrude Ingeborg	Cl.	Iowa City
Walters, Lillie Mae	Ph. A.	Harlan
Warner, Orlyn Dorphon	Ph. B.	Iowa City
Watland, Clarence	Cl.	New Sharon
Welch, David Sewall	Sci.	Glenwood
Wharton, Jesse Rolland	Ph. B.	Franklin
White, Warren Henry	Cl.	Iowa City
Williams, Creighton David	Ph. B.	Neola
Willis, Harry Douglas	M. E.	Iowa City
Wilson, Clara Rosa	Ph. B.	Iowa City
Young, Iowa Madge	Ph. B.	North Liberty
*Zwilling, Dan Letson	Ph. B.	Nevada

FRESHMEN

Aardoppel, Walter	C. E.	Sioux Center
Adams, Mary Annette	Ph. A.	Shelby
Allen, Burritt Steward	Ph. B.	Laurens
Allstrand, Mae Belle	Cl.	Missouri Valley
Anderson, Harold Charles	Ph. A.	Oelwein
Andrews, Alfred Morse	Ph. B.	Morse
Ball, Walter McDowell	Sc. & M.	Iowa City
Ballard, Eugenia Maria	Ph. B.	Iowa City
Barker, Erwin Jeremiah	Ph. B.	Cresco
Barrett, Edward Cecil	Ph. A.	Burlington
Beatty, Floyd James	E. E.	Tipton
Beatty, Floyd Seydel	Ph. B.	Iowa City
Beauchamp, Bertha Ewing	Cl.	Bedford
Berry, John Williams	C. E.	Iowa City
Blakely, Ernest Reuben	C. E.	Corydon
Boerner, Edna Louise	Ph. A.	Iowa City
Boies, Harry Edward	Ph. B.	Missouri Valley
Bowman, Clarence Henry	C. E.	Solon
Bradley, Frank Timothy	Ph. B.	Iowa City
Brant, Lucy Winifred	Sci.	Iowa City
Brown, Earl	Ph. A.	Emmetsburg
Buffum, Mary Susie	Ph. B.	Le Roy
Burbank, Manus Combs, Jr.	Cl.	Missouri Valley
Burnquist, Bert Blaine	Ph. A.	Ft. Dodge

*Deceased.

Butler, William Pinkney	Cl.	Marshall, Tex.
Call, Merlyn Bush	Cl.	Iowa City
Carlson, Christian R.	Ph. B.	Humboldt
Carpenter, Edwin Hager	Ph. A.	Burlington
Casady, Philip Murray	Sci.	Des Moines.
Chase, Nellie Althea	Ph. B.	Waterloo
Chase, Olive Merrill	Ph. A.	Waterloo
Chesley, Frank Ephraim	C. E.	Iowa City
Clearman, Wilfred Jewett	Ph. B.	Iowa City
Coffin, Frank W.	Sci.	Columbus Junction
Cole, Viva Victoria	Ph. A.	Britt
Core, George Clinton	Ph. B.	Rolfe
Coyne, Andrew Howard	Ph. B.	Bricker
Danielson, Henry Clarence	C. E.	Lamoni
Daum, Philip Hugh	Sci.	Davenport
Davidson, Lois Craig	Ph. A.	Estherville
Davies, Robert Geiser	Cl.	Emmetsburg
De Hart, Otto Dell	Ph. B.	Milton
Dean, Lyle Lucious	C. E.	Tipton
Dennis, Edna Clementine	Ph. B.	Iowa City
De Sellem, Anna Louise	Ph. B.	Iowa City
Donahue, Alice Elizabeth	Sci.	Iowa City
Donovan, Louis Patrick	Ph. B.	Eagle Grove
Drake, Guy Arthur	Ph. B.	Adel
Dunham, Elsie Martha	Sci.	Manchester
Dunkel, Benedict William	C. E.	Iowa City
Dunning, Ethel Genevieve	Ph. A.	Mt. Ayr
Elbert, Hoyt Hugh	Ph. B.	Des Moines
Emmert, Max Washabough	Cl.	Atlantic
Fair, Etta Pearl	Ph. A.	Agency
Farnsworth, Asa Alexander	Ph. B.	Cresco
Fay, Wylie Webb	Ph. B.	Nevada
Files, Ray,	Ph. B.	Iowa City
Finkbine, Robert Hoyt	Sci.	Des Moines
Fitz, David John	Ph. B.	Panora
Fogg, Walter E.	Sci.	Springdale
Foster, Florence Irene	Ph. B.	Iowa City
Gabriel, Grace Ethel	Cl.	Des Moines
Gildner, Edward Everett	Ph. B.	Nora Springs
Gilman, Ada Nadene	Ph. A.	Rock Rapids
Gonterman, Emery Oliver	Sc. & Med.	County Line
Goodwin, James Edwin	Ph. B.	Burt

Gordon, Arthur Clarkson	Cl.	Iowa City
Green, John Reuben	Ph. B.	Onslow
Greenawalt, Richard Albert	Sci.	Springville
Gregory, Horace Whiting	Ph. A.	Denison
Griffith, Dwight Moody	Cl.	Iowa City
Griffith, Grace	Ph. A.	Iowa Falls
Haas, Robert Arthur	Sci.	Shelby
Hammill, George Jr.	Ph. B.	Britt
Harrison, Ben Thomas	C. E.	Sioux Falls
Hartshorn, Lee Arlington	Sci.	Davis City
Hartsock, Margaret Ellen	Ph. B.	Iowa City
Haskins, Ernest Herbert	Ph. A.	Adel
Hayden, Clara May	Sc. & Med.	Eldon
Hector, Fred Carl	Ph. B.	Walnut
Hennessy, Edward Francis	Ph. B.	Strawberry Point
Hershire, Richard Aaron	C. E.	Iowa City
Hill, Stubbins Fred	Cl.	Britt
Hill, Mildred Louise	Cl.	Iowa City
Hinkle, Bessie Catherine	Ph. B.	Harvard
Hinkle, Jessie Ellen	Ph. B.	Harvard
Hodge, Katharine Julena	Ph. B.	Maquoketa
Hodgin, Charles Aaron	Ph. B.	Marion
Hoffman, Edith Mae	Ph. B.	Webster City
Honnold, John Guy	Ph. A.	Le Mars
Huebner, John	Sci.	Iowa City
Hummer, Sarah Agatha	Ph. B.	Iowa City
Hunt, Ralph Blaine	Ph. B.	Denison
Hutchinson, Everett Ross	Sci.	Allerton
Jenkins, Firmen Clyde	Ph. B.	Villisca
Jennings, Avery Graham	Ph. B.	Council Bluffs
Johnson, James Orin Elmer	Ph. B.	Northwood
Johnston, Mamie	Ph. B.	Harlan
Kimple, Mabel Gertrude	Ph. B.	Allerton
Kimple, Mae Belle	Ph. B.	Corydon
King, Reuben Thompson	Cl.	Glenwood
Kleinsorge, Rudolph Ernst	Sci.	Le Mars
Knapp, Carl William	Cl.	Lenox
Koser, Mae Mattie	Ph. B.	Iowa City
Kruse, Paul Jehu	Ph. A.	Boone
Lahman, Rush Clark	Ph. B.	Missouri Valley
Lambert, Clarence Joseph	Ph. B.	Adrian, Ill.
Letts, Ernest Grove	Ph. B.	Fairfield

Long, Cecile Florence	Cl.	Bedford
Long, Pearl	Ph. B.	Le Claire
Louis, Anna	Sci.	Harlan
Love, Francis Leonard	Sc. & M.	Manson
Lynch, Alice Marie	Ph. A.	Sioux City
Lynn, Margaret May	Cl.	Iowa City
McAuliff, Leslie	Cl.	Le Mars
McCulloch, Milan Ellsworth	Cl.	Humeston
McElroy, Edna Estelle	Ph. A.	Rockford
McNally, Mary Janette	Ph. B.	Cedar Falls
McVay, Mary Alice	Ph. B.	Iowa City
MacDill, Mabel	Ph. B.	Iowa City
Marick, George Louis	C. E.	Allerton
Martin, Lenore Lillian	Ph. A.	Iowa Falls
Maxwell, William Howard	Ph. B.	Avoca
Mayne, Herman Charles	Cl.	Algona
Mercer, Mary Bertha	Ph. B.	Iowa City
Merritt, Mabel Clough	Ph. A.	Iowa City
Metzger, Belle Agnes	Cl.	Iowa City
Metzger, Della Elizabeth	Cl.	Iowa City
Miller, Claude Melvin	Ph. B.	Iowa City
Miller, Dalton Giles	C. E.	Guthrie Center
Moffitt, Chester Earl	Ph. B.	Fonda
Moore, Theone Ray	Cl.	Traer
Morgan, Frank Sonun	Ph. A.	Harlan
Morris, Harry Renard	C. E.	Denison
Murdy, Sybil Serelda	Ph. A.	Ft. Madison
Naberhuis. Henry Albert	C. E.	Sioux Center
Neander, Victor Theophilus	Ph. B.	Cambridge, Minn.
Negus, Joseph Elisha	Sci.	Iowa City
Nichols, Ethel Gay	Ph. B.	West Liberty
Nutting, Harry George Dallas	Sci.	Rock Island, Ill.
O'Connell, John Francis	Cl.	Atlantic
O'Harrow, Rolfe	E. E.	Rockford
Olinger, Reuben James	Cl.	California
Opfer, Edward George	Ph. B.	Waukon
Paine, Sarah Olivia	Ph. A.	Iowa City
Palmer, Maud Luree	Sci.	Monticello
Peters, Harriet Dorothy	Ph. B.	Lyons
Phelps, Henry Hurst	Sci.	Springdale
Phelps, Howard Lynn	C. E.	Springdale
Plumley, Harold	E. E.	Rockford

Preston, Edith	Ph. B.	Oskaloosa
Price, Mildred	Cl.	Iowa City
Randall, Ray	Sci.	Denison
Read, Ralph Lewis	Ph. B.	Des Moines
Rink, Clarence William	Ph. B.	Shelby
Rinker, Purley	Ph. B.	Seymour
Rohrig, Emma Sophia	Ph. B.	Iowa City
Ross, Carl Wesley	Cl.	Des Moines
Sangster, Frank	Ph. B.	Iowa City
Sarset, Edwin Cornelius	C. E.	Britt
Scarr, Furniss Morton	Ph. B.	Cumberland
Schaeffer, Oma Georgia	Ph. B.	Iowa City
Schroder, Ralph	Sci.	Van Horne
Schultz, Clara Mary	Ph. A.	Burlington
Schultz, Laveta Juanita	Ph. B.	Alden
Sebern, Nellie Brewer	Cl.	Vinton
Secrest, Mary	Ph. B.	Downey
Seeds, Bertha Willa	Ph. A.	Washington, D. C.
Seidel, Earl Reinholdt	Ph. B.	Portland
Seydel. Fred	Ph. B.	Iowa City
Shaw, John Austin	C. E.	Vinton
Sherwood, Elizabeth Julia	Cl.	Iowa City
Siemen, Edward Anthony	E. E.	Sioux Center
Simmons, Richard Sutton	Ph. B.	Cedar Rapids
Singleton, William Eugene	C. E.	Farmington
Skelley, Silas Emmett	Ph. B.	De Witt
Smith, Matilda Annie	Sci.	St. Ansgar
Snedicor, Fred Elwyn	Ph. B.	Cherokee
Soesbe, Carrie May	Cl.	Greene
Spinney, Blanche Gardner	Ph. B.	Des Moines
Steck, Daniel Fredric	Ph. B.	Ottumwa
Stockdale, Ella Naomi	Ph. B.	Iowa City
Struble, Isaac Irving	Ph. A.	Le Mars
Sunier, Bertha	Cl.	Iowa City
Swigart, Willard Carlisle	Ph. B.	Maquoketa
Terrell, Charles Everett	C. E.	Des Moines
Thompson, Effie Louise	Ph. B.	Iowa City
Treichler, Joseph Rhoades	Sci.	Tipton
Tweed, Horace Anton	Sci.	Forest City
Van De Steeg, George Herbert	Ph. B.	Orange City
Van der Zee, Jacob	Cl.	Sioux City
Veblen, Signy Arndora	Ph. A.	Iowa City

Walker, Laura	Sci.	Des Moines
Waterbury, Ella Irene	Cl.	Iowa City
Wells, John Dennison	Ph. B.	Glidden
West, George Parsons	Cl.	Sioux City
West, Philip Cecil	Cl.	Irwin
Whitacre, Max	Sci.	New Sharon
Wiehr, Josef	Ph. B.	Iowa City
Wiley, Stella Lucile	Ph. A.	Castana
Wille, Otto Victor	Sci.	Iowa City
Williams, Benjamin Parker	Sci.	Adel
Williams, Etta Louise	Ph. B.	Parkersburg
Wilson, Helen Benton	Ph. A.	Des Moines
Wingert, Peter Earl	Sci.	Tipton
Wingert, Ralph D.	Sci.	Tipton
Wolf, Bertha Sarah	Ph. A.	Tipton
Wright, William Coutts	Sci.	Tipton
Wyland, Benjamin Franklin	Ph. A.	Harlan
Young, Hugh Edward	C. E.	Anamosa
Yule, Anna May	Sci.	Tipton
Zika, George Albert	C. E.	Leslie

UNCLASSIFIED

Allbee, Margaret Malvina	Pleasant Prairie
Ashby, Esther Alma	Pilotburg
Brown, Robert Joseph	Cedar Rapids
Bryson, Mrs. Stella Gearhart	Troy Mills
Campbell, Marie Delphine	Sibley
Chamberlin, Lelia May	Creighton, Mo.
Chamberlin, Louise	Colorado Springs, Col.
Clapp, Alice Louise	Shelby
Corlett, Clara Marie	Iowa City
Cox, Guy	Missouri Valley
Craven, Charles Allen	Onawa
DeVoll, Eula Carlotta	Glens Falls, N. Y.
Dixon, Ollie Edyth	Washington
Dorweiler, Paul	West Bend
Evans, Edith Price	Elgin, Ill.
Everett, Emma Dolorosa	Cosgrove
Everts, Mary Sleight	Avondale, Col.
Fesler, Susie Alice	Iowa City
Frazier, Zoe Rae	Nevada
Geyer, Philip Wesley	Cedar Rapids

Goetz, Antoinette	Iowa City
Goff, Charlotte	Des Moines
Gutterson, Grace	Owatonna, Minn.
Haas, Laura Neely	Iowa City
Hazard, Mrs. Minerva Calkins	Iowa City
Helmer, Arthur C.	Davenport
Jones, Nyle William	Iowa City
Kimball, Franklin Burton	Iowa City
Landsberg, Helen Laura	Iowa City
Leathers, Victoria	Mapleton
Logan, Alida Frances	Chicago, Ill.
Longley, Alice Sarah	Des Moines
Lott, Guy Alexander	Menlo
McKirahan, Henry Herschel	Cincinnati, Ohio
Matson, John Archie	Kossuth
Mayer, Mrs. Julia Bloom	Iowa City
Meyer, Jacob William	Orange City
Mighell, Dr. Lola Clark	Iowa City
Miles, Emma Lulu	Lineville
Miles, Mabel	Lineville
Mitchell, Lebbeus Horatio	Nevada
Moulton, Myron Dudley	Iowa City
Mullin, George Henry	Iowa City
Murphy, Edward Andrews	Vinton
Myers, Maud Modelle	North Liberty
Namur, Cecelia Barbara	Iowa City
Parsons, Peryl Marie	Newton
Redfield, Roy Addis	Ruthven
Rhodes, Ruby Williams	Iowa City
Schultz, Etta Ruth	North Liberty
Shaver, May Clare	Red Oak
Slade, Albert Arthur	Tiffin
Slavata, Clara Josephine	Iowa City
Smith, Percy Preble	Cedar Rapids
Spinden, Grant Noah	Iowa City
Stewart, Gretchen	Muscatine
Strange, Joanna Gleed	Sioux City
Stratton, Frances Eleanor	Iowa City
Sturm, Mrs. Isabel Currier	Iowa City
Swoyer, Loemma E.	Iowa City
Van Vleck, Alfred Wheeler	Buffalo, N. Y.
Waite, Pearl Hortense	Iowa City

Walker, Henry Grass	Fontanelle
Watkins, Joseph Cook	Iowa City
Watters, Henry Bertram	West Liberty
Watts, Ralph Newton	Miles
Whiting, Donna Marie	Iowa City
Wilson, Jennie Louise	Creston, Neb.
Wright, Grace	Plato

PROJECTED REGISTRATION

Blackmar, Harry E.	Emmetsburg
Fitzgerald, James Edmund	Kingsley
Moffett, Lambert Benton	Oelwein
Thornburg, William Burton	Seymour

STUDENTS IN PROFESSIONAL COLLEGES REGISTERED FOR STUDIES IN THE COLLEGE OF LIBERAL ARTS

Anderson, William Howard	Maplehill
Arnett, Lillie Amanda	Springhill
Arthur, Edwin Calhoun	Logan
Bannister, Robert James	Ottumwa
Birss, George Alexander	Tipton
Boots, Frederic Warner	Linden
Brose, Frank Verne	Ocheyedan
Brown, Edwin Keech	Solon
Brown, Francis Henry	Elwood
Burnett, George Ritter	Iowa City
Chambers, James Robert	Vinton
Christensen, Jens	Waterloo
Clark, Charles Vern	Osage
Claussen, George	Clinton
Clegg, Samuel Harvey	Ainsworth
Cook, Roy Arthur	Independence
Creswell, William L.	Reinbeck
Crockett, Frank Walford	Iowa City
Cross, John Eli	Ira
Diamond, Tobias Ellsworth	Orange City
Dunn, John Edward	East Orange, N. J.
Engelke, Charles Rufus	Sidney
Estes, Joel Sydney	Thurman
Fitzpatrick, Daniel Helen	Fort Dodge

Fitzpatrick, Miles Joseph	Fort Dodge
Frieburger, Benjamin Franklin	Manson
Grinstead, Frank Leo	Kettle Falls, Wash.
Hadley, Herbert Erwin	Badger
Hagan, John	Independence
Hagan, Martin	Independence
Hanson, William Patrick	Williamsburg
Harris, Fred Elwon	Woodward
Heminger, Amos Lincoln	Keosauqua
Hopkins, Anna	Bloomington, Minn.
Hunter, Charles Randall	Exira
Hunter, John McCrary Griggs	Exira
Irvine, Albert Elmer	Oelwein
Kelly, Daniel Matthew	Blessing
Kenderdine, Glenn Albert	Lisbon
Kimball, Frank Burton	Iowa City
Klise, Harrold Edward	Baxter
Kroger, Emil Tease	Princeton
Kuck, Orlando Adolph	Charles City
Landsberg, Edward William	Iowa City
Linville, Guy Pittman	Carson
McCoy, Edward Hugh	Dumont
McDermott, Peter John	Iowa City
McElroy, Isaac Irwin	Pleasant Prairie
Miner, Cora Rebecca	Waukon
Morris, Creslie Daniel	Winterset
Mowry, Ross Rutledge	Baxter
Munger, Francis Elbriggs, Jr.	Sioux City
Nicholson, Harry Carl	Lamoni
Norman, Charles John	Van Meter
Ridgeway, William Bailey	Winfield
Risk, Loren	Stanley
Rosenbladt, Fritz	Bayard
Shannahan, Edwin Joseph	Holbrook
Smeltzer, Cora Hulda	Washington
Spurgeon, Theodore	Iowa City
Steele, Earl Newell	Perry
Summerville, Robert James	Manning
Turner, Edward Marsh	Iowa City
Vaughn, John Thomas	Fort Dodge
Wenner, Edward Jackson	Garrison

SUMMER SESSION, 1901

Allen, Henrietta Frances	Allentown, Pa.
Anders, Mrs. Florence	Iowa Falls
Anderson, Laura	Iowa City
Anderson, Rudolph Martin	Iowa City
Ashby, Evelyn Jane	Cedar Rapids
Bailey, Frederick William	Iowa City
Ball, Marguerite Adell	Cedar Falls
Ballard, George Henry	Charles City
Barnett, Eliza Frances	Weston
Batman, Anna	Nevada
Bernard, Anna Augusta	Montezuma
Bibbs, Alice Wall	Boone
Blackmar, Harry E.	Emmetsburg
Blakely, William Henry	Livermore
Bowman, Bessie	Lyons
Brown, Maude Anna	Marengo
Bryant, Mrs. Lottie Vernon	Corning
Buckles, George Russell	Troy
Burgess, Elizabeth Maud	Elma
Cady, George Luther	Iowa City
Chamberlin, Louise	Colorado Springs, Col.
Clapp, Lucretia Dunham	Burlinglon
Chapin, Gertrude Eveline	Grinnell
Clapp, Albert Carpenter	Shelby
Clegg, Samuel Harvey	Ainsworth
Collins, Edward Robert	Bloomfield
Collins, Frank Butler	Grundy Center
Cooper, Elizabeth Janette	Winterset
Corlett, Jessie May	Iowa City
Cory, Charles Seldon	Fredericksburg
Cox, Arthur John	Iowa City
Cox, Mrs. Elizabeth Gardiner	Iowa City
Curtis, Alice Bertha	Allison
Curtis, Cora Gertrude	Allison
Delavan, George Edwin	Estherville
Dick, George Stuart	Charles City

Doren, Elizabeth Bragdon	Dayton, Ohio
Eddy, Helen May	Marengo
Eddy, Mary Louise	Marengo
Ede, Ernest D.	Earlville
Edmondson, Charles Howard	Milton
Ellis, Mamie Ruth	Iowa City
Estabrook, Clara Ella	Eldora
Estes, Reuben Marion	Thurman
Evans, Emma Laura	Greenfield
Fitch, Harry Holland	Lytton
Fitzgerald, James Edmund	Kingsley
Ford, D. Fae	Manchester
Fracker, George Cutler	Cedar Rapids
Gardner, Lucy F.	Iowa City
Gay, Margaret Leona	Chariton
Gordon, Arthur Clarkson	Iowa City
Gordon, Mary Agnes	Iowa City
Gordon, Pearl Avis	Hamilton, Illinois
Graham, Joseph W.	Mechanicsville
Grillet, Ida Louise	Sioux City
Groves, Ada Dell	Des Moines
Handley, Edward Seth	Solon
Heminger, Amos Lincoln	Keosauqua
Hershire, Mildred	Iowa City
Hess, Sadie Murray	Iowa City
Hodge, Lida Jane	Indianola
Hornsyld, Peder Pedersen	Des Moines
Hull, Pearl	Iowa City
Hurlbut, Grace Alice	York, Nebraska
Hussey, Lena Alice	Independence
Jameyson, Charles Oscar	Reinbeck
Johnson, Jessie Florence	Farlin
Kemmerer, Theodore Wilbert	Eldridge
Knapp, Charles Clayton	Grinnell
Lambert, Emma Frances	Cedar Falls
Lloyd, Adelaide Charlotte	Iowa City
Lodwick, Deca	Iowa City
Lodwick, Libbie	Iowa City
Lorenz, Charlotte Marie	Burlington
Lutz, Daisy Irene	Cedar Rapids
Lytle, Mary	Iowa City
McClain, Henry Griffiths	Iowa City

McCoy, Edward Hugh	Dumont
McLaury, Emily Irene	Webster City
McLoney, Ella M.	Des Moines
Macbride, Jean	Iowa City
Mahin, Mrs. Emma Lillibridge	Muscatine
May, Samuel Thomas	Hawarden
Meyerholz, Charles	Wapello
Miller, Mai Emma	Red Oak
Moffett, Lambert Benton	Oelwein
Moravec, Agnes Emma	Belle Plaine
Morris, Daisie May	Charles City
Mueller, Mary Theresa	Iowa City
Paarmann, Juergen Herman	Davenport
Paine, Katherine	Iowa City
Parker, Olivette Butcher	Burlington
Peterson, Nina Margarethe	Evanston, Wyoming
Pittman, Cora Helen Knowles	Keokuk
Preston, Clara Carlton	Elkader
Preston, Gertrude Elaine	Iowa City
Quigley, Edward Gross	Fairfield
Quigley, Samuel	Brighton
Reherd, Mary Louise	Geneseo, Illinois
Roberts, Newton William	Ottumwa
Rogers, Frances Louise	Iowa City
Ross, Anna Zoe	Council Bluffs
Rosser, Bert Paul	Troy
Rundall, Ethel Beatrice	Rodman
Schiefelbein, Emil August	Guttenberg
Schmidt, Emma Johanna	Burlington
Shaffer, Nina Rebecca	Iowa City
Shedd, Edith	Council Bluffs
Sherwood, Francis Daniel	Clearfield
Shuck, May	Iowa City
Stein, Lollie Alvine	Burlington
Stevens, Olive Edson	Ames
Storck, Arthur Herman	Earlham
Sweney, Marshall Charles	Osage
Switzer, Grace Ellen Elizabeth	Iowa City
Tellier, Frank Ellsworth	Algona
Thomas, Ruth Jane	Iowa City
Thompson, John Wesley	Wapello
Thornburg, William Burton	Seymour

Tipple, Fannie Fern	Glenwood
Truman, Emma Victoria	Sloan
Ullrich, Mrs. Linna	Centerville
Veblen, Agnes Kari Anne	Iowa City
Waterbury, Ella Irene	Iowa City
Wayne, Mabel Alice	Decatur, Illinois
Weld, LeRoy Dougherty	Clinton
Wertman, Margaret Maude	Greenfield
Whedon, Arthur DeWett	Iowa City
White, Warren Henry	Iowa City
Williams, Josephine Viola	Iowa City
Williams, Mabel Clare	Coralville
Williams, Mark Wayne	Iowa City
Willis, Bertha Belle	Iowa City
Wilson, Clara Rose	Iowa City

THE GRADUATE COLLEGE

DEGREES CONFERRED JUNE, 1901

DOCTOR OF LAWS (HONORARY)

Seerley, Homer H., B. Ph., 1873; B. D., 1875; M. A., 1876.

MASTER OF ARTS

Cooper, Clyde Barnes, B. A., 1897, The University of Nebraska.
Hatch, Daisy Eleanore, B. A., 1898.
Sayers, Samuel Jefferson, B. Ph., 1897.
Spurgeon, Floris J., B. S., 1900.
Thomas, Simeon E., B. Ph., 1898, Upper Iowa University.
Williams, Charles Allyn, B. A., 1899.

MASTER OF SCIENCE

Brink, Frank Newton, B. Ph., 1899.
Donohoe, Anthony Patrick, B. S., 1897.
Gibbs, George Sabin, Jr., B. S., 1897.
Lambert, John Joseph, B. Ph., 1899.
Sieg, Lee Paul, B. S., 1900.
Tamura, Satoru Tetsu, B. S., 1900, Simpson College.

ELECTRICAL ENGINEER

Willis, Bernard Darwin, B. S. in E. E., 1897.

MATRICULATES FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Bartsch, Paul, B. S,, 1896; M. S., 1899; Washington, D. C.
Conchology, Ornithology.

Cady, George Luther, Iowa City
B. A., 1890, Olivet; B. D., 1894, Chicago Theological Seminary;
Sociology, Philosophy.

Conner, Jacob Elon, B. A., 1891; Mt. Pleasant
Sociology and Political Philosophy, Economics, Political Science.

Dorcas, Herbert Clifford, B. Ph., 1895; Iowa City
Education, Psychology, Philosophy.

Fitzpatrick, Thomas Jefferson, Iowa City
B. S. 1893; M. S., 1900;
Botany, Geology.

Fracker, George Cutler, Cedar Rapids
B. Ph., 1894; B. Di., 1896; M. A., 1900;
Psychology, Philosophy.

Horack, Hugo Claude, B. Ph., 1899; LL. B., 1900; Iowa City
Political Science, Iowa History and Politics.

Lambert, John Joseph, Iowa City
B. Di., 1896; M. Di., 1897, Iowa State Normal; B. Ph., 1899; M. S., 1901;
Morphology, Geology.

Mason, Oscar Henry Leonidas, Reinbeck
B. A., 1893; M. A., 1895;
Philosophy, Sociology.

Sieg, Lee Paul, B. S., 1900; M. S., 1901; Marshalltown
Physics, Mathematics.

Spurgeon, Floris J., B. S., 1900; M. A., 1901; Iowa City
Political Science, Sociology.

Stookey, Stephen W., Cedar Rapids
B. S., 1884, Coe College; M. S., 1887, The University of Chicago;
Zoology, Botany.

Thomas, Simeon E., Nora Springs
B. Ph., 1898, Upper Iowa University; M. A., 1901;
Political Science, Iowa History and Politics, Sociology and Political Philosophy.

Williams, Charles Allyn, B. A., 1899; M. A., 1901; Coralville
German, Scandinavian.

Williams, Mabel Clare, B. Ph., 1899: Coralville
Psychology, Animal Morphology.

Williams, Mark Wayne, B. A., 1898; Iowa City
History of Philosophy and Ethics, Psychology.

MATRICULATES FOR THE DEGREE OF MASTER OF ARTS

Bailey, John Tyley, Charles City
B. A., 1890; LL. B., 1892, Lake Forest University.
English Literature, English Language.

Baker, Irving Wesley, B. Ph., 1897; LL. B., 1898; Chicago, Ill.
Political Philosophy, United States History.

Baughman, Ruby, B. A., 1900; Jefferson
Social Philosophy, United States History.

Bowman, John Gabbert, B. A., 1899; Lyons
English, Philosophy.

Brasted Fred, B. S., 1893; Ida Grove
Sociology, Economics.

Briggs, Fletcher, B. Ph., 1901; Nevada
German, Old Norse, English.

Brockway, Earle Bailey, B. A., 1895; Garner
Philosophy, English.

Brown, Florence Emily, B. Ph., 1892; Marengo
Abnormal Psychology, Animal Morphology and Physiology

Brown, Samuel Joe, B. A., 1898; LL. B., 1901; Ottumwa
Political Science, Economics.

Buffum, Hugh Straight, B. A., 1901; Leroy
Public Speaking, Education.

Chamberlain, Park, B. Ph., 1899; Anamosa
American History, Municipal Government.

Coffeen, Elmer Laupher, Decorah
B. L., 1893; M. L., 1898, Carleton College
Sociology, Education.

Daum, Selma A., B. Ph., 1900; West Liberty
Sociology, Psychology.

Davis, Arthur William, Fonda
B. S., 1893, Upper Iowa University;
Economics, Comparative Constitutional Law.

Dick, George Stuart, Charles City
B. Di., 1887, Iowa State Normal; B. S., 1888; B. Ph., 1897, Cornell College;
Psychology, Education, French.

Dilley, Wesley Young, Hawarden
B. Ph., 1897, Cornell College;
Political Science, Government.

Eaton, Ernest Theo, Des Moines
B. S., 1897, Lenox College; B. Ph., 1899;
History, Psychology.

Eddy, Helen May, B. A., 1900; Marengo
Latin, German.

Egan, George William, Missouri Valley
B. A., 1900; LL. B., 1901;
Political Science, Sociology.

Ellis, Dias Henry, B. S., 1900, Penn College; Motor
Political Economy, History.

Fellingham, John H., Marshalltown
M. Di., 1894, Iowa State Normal; B. Ph., 1900;
Economics, Philosophy.

Garver, Frank Harmon, Sioux City
———, 1895, Epworth Seminary; B. A., 1898, Upper Iowa University;
American History, Political Science.

Gaston, Myron Clinton, B. A., 1901, Tabor College; Tabor
Greek, Latin.

Graff, Lulu A., B. S., 1899; Iowa City
English Language and Literature, German, French.

Hawk, Ira Tapper, B. A., 1899; Winterset
Sociology, Philosophy.

Hayward, Roy Stanton, Davenport
B. Ph., 1898, Cornell College; LL. B., 1901;
Politics, Economics.

Heald, Francis Alfred, B. Ph., 1900, Cornell College; Cresco
Political Science, Sociology.

Hearst, Mamie Frances, Cedar Falls
M. Di., 1892, Iowa State Normal; B. Ph., 1899;
English Literature, English Language.

Hornsyld, Peder Pedersen, Des Moines
———, University of Copenhagen;
German Literature, Old Norse, Middle High German.

Howard, Libbie C., B. Ph., 1899; Jefferson
Sociology, United States History.

Hruska, Victoria, B. A., 1901; Spillville
French, German.

Humphrey, Benton Wade, Walford
B. Ph., 1899, Cornell College;
Political Science, Economics.

Hunt, Percival, Cedar Falls
B. Di., 1896; M. Di., 1897, Iowa State Normal; B. A., 1900.
English Language, English Literature.

Jackson, Thomas Sunter, Sheffield
B. S., 1900, Upper Iowa University;
Political Science, History.

Jones, David, B. A., 1900, Penn College; Oskaloosa
History, Political Science.

Kawakami, Kiyoshi, LL. B., Tokio College; Iowa City
Political Science, Sociology, Political Economy.

Louis, John Jay, B. Ph., 1899; Harlan
Sociology, Politics.

McCoy, Hugh Ben, Oskaloosa
B. S., 1901, Iowa Wesleyan University;
Political Science, History, Law.

Mather, Carl Henry, B. S., 1900, Penn College; Springdale
Political Economy, History.

Paine, Katharine, B. Ph., 1889; Iowa City
English Literature, English Language.

Paxson, Susan, B. Ph., 1891; Manchester
Education, Latin.

Polk, Mary Emma, B. A., 1900; Winterset
English Literature, English Language.

Preston, Gertrude Elaine, B. Ph., 1898; Iowa City
Mathematics, History of Philosophy.

Pugh, Mrs. Marian Adell Howe, Des Moines
B. S., 1891, M. D., 1900;
Experimental Psychology, Abnormal Psychology.

Reever, William Henry, M. Di., 1895, Baldwin
Iowa State Normal; B. Ph., 1897;
History, Political Economy.

Robinson, Alta Aileen, B. Ph., 1900; Iowa City
English Language, English Literature.

Saam, John Gustave, B. S., 1900, Lenox College; Lansing
Literature, History.

Saam, Theodore J., B. S., 1898, Lenox College; Lansing
History, Education.

Schiefelbein, Emil August, Guttenberg
B. S., 1896; Upper Iowa University;
Economics, History.

Sharpe, James Joseph, B. A., 1898; Oxford
Political Science, History of Philosophy.

Sharpe, Mrs. Lillian Ehret, B. Ph., 1899; Oxford
History of Philosophy, Political Science.

Simonton, Thomas Milton, Iowa City
B. Ph., 1900; LL. B., 1901;
Sociology, Education and Economics.

Sloan, Sam Berkly, Logan
B. A., 1899, The University of Nebraska;
English Literature, English Philology.

Smith, Charles Leonard, B. A., 1891; Iowa City
Botany, History of Botany, German.

Smith, Tillman, B. Ph., 1899; Leon
Education, Economics, Politics.

Sterling, Editha Hortense, B. Ph., 1901; Iowa City
Psychology, Public Speaking, English.

Stover, Bessie Esther, B. S., 1901; Iowa City
English, French.

Walters, Theodore Augustus, Updegraff
B. S., 1900, Upper Iowa University;
Political Science, History.

Watson, Joseph Otis, Indianola
B. A., 1893; M. A., 1896, Simpson College; LL. B., 1897;
Economics, History.

Weldy, Morton Eugene, Des Moines
M. Di., 1896, Iowa State Normal; B. A., 1899;
English History, Philosophy.

Wise, George Chester, B. Ph., 1900; Wilton Junction
Germanics, French.

MATRICULATES FOR THE DEGREE OF MASTER OF SCIENCE

Albert, Henry, B. S., 1900; Reinbeck
Pathology and Bacteriology, Botany.

Ankeney, Alice, B. A., 1897, Wells College; Ankona, Florida
Chemistry, Chemical Analysis, German.

Bailey, Frederick William, B. S., 1901; Iowa City
Physiology, Morphology, Medical Course.

Beck, William Edmund, B. S., 1900; Sioux City
Mathematics, Physics.

*Blackmore, Ralph Davis, B. S., 1899; Iowa City
Organic Chemistry, Morphology.

Branson, Laura House, M. D., 1885; B. S., 1901; Iowa City
Pathology, Histology and Embryology.

Brockway, James Madison, B. Ph., 1901; Iowa City
Zoology.

Burton, Harry Edward, B. A., 1901; Onawa
Mathematics, Astronomy.

Cavanagh, Lucy Mary, B. S., 1896; Iowa City
Botany, Zoology.

Clark, Whit H., B. S., 1897; Rock Valley
Mathematics, Education.

Clearman, Hattie Marie, B. Ph., 1900; Iowa City
Botany, Geology.

Dean, Ray Herbert, B. S., 1899; Muscatine
Pathology, Physiological Chemistry.

Gow, James Ellis, B. Ph., 1901; Greenfield
Histological Botany, Systematic Botany.

Hamilton, Arthur Stephen Independence
B. S., 1894, Lenox College; M. D., 1897, The University of Pennsylvania;
Abnormal Psychology, Speculative Zoology.

Harkness, Gordon Follette, B. S., 1900; Iowa City
Pathology and Bacteriology, Chemistry.

Johnston, Oscar Percy, B. Ph., 1897, Iowa College; Vancleve
Chemical Analysis, Physiological Chemistry.

*Died October 26, 1901.

Kemmerer, Theodore Wilbert, Eldridge
B. S., 1900; M. D., 1901;
Neuro-Pathology, Abnormal Psychology.

Lambert, Charles Irwin, Cedar Falls
M. Di., 1897, Iowa State Normal; B. S., 1901;
Pathology and Bacteriology, Morphology.

Lees, James Henry, B. Di., 1893; Cedar Rapids
M. Di., 1897, Iowa State Normal; B. A., 1901, Coe College;
Geology, Biology.

Mosnat, H. Roy, B. Ph., 1899; Belle Plaine
Glacial Geology, Artesian Wells in Iowa.

Mueller, Herman August, B. Ph., 1899; Winterset
Geology, Botany, Education.

Myers, Perry Cullen, B. S., 1899; Winona, Minn.
Diatoms of Iowa, Fossil Diatoms.

Paarmann, Juergen Herman, B. S., 1901; Davenport
Zoology, Morphology.

Rhodenbaugh, Edward Franklin, Denison
B. S., 1897, Iowa State College;
Botany, Chemistry, German, Petrology.

Schoonover, George L., B. Ph., 1900; Anamosa
Geology, Palæontology.

Shimek, Bohumil, C. E., 1883; Iowa City
Botany, History.

Stromsten, Frank Albert, B. S., 1900; Corydon
Morphology, Botany, Geology.

Weld, LeRoy Dougherty, B. S., 1899; Clinton
Physics, Mathematics.

Werts, Charles Martel, B. S., 1900; Russell
Physiological Chemistry, Histology.

MATRICULATES FOR THE DEGREE OF CIVIL ENGINEER

Burrier, Emmett Francis, B. S., 1901; Farmington
Civil Engineering, Physics.

Weeks, Gaylord D., B. S., in C. E., 1901; Iowa City
Limes and Cements, Engineering.

MATRICULATE FOR THE DEGREE OF MINING ENGINEER

Friend, Frank Victor, B. S., 1890; Marshalltown
Mathematics, Chemistry.

MATRICULATES NOT CANDIDATES FOR DEGREES

Biggs, Mrs. Eleanor Startsman, Iowa City
B. Ph., 1887; M. A., 1890;
English, Greek.

Bush, Stephen Hayes, South Lincoln, Mass.
B. A., 1901; M. A., 1902, Harvard;
Spanish, Old French.

Coast, Mrs. Grace McGee, B. S., 1891; Iowa City
Greek Mythology.

Freeman, Mae Agnes, B. Ph., 1897; M. A., 1898; Iowa City
English.

Hardy, Mrs. Eliza Jane, B. Di., 1866; Iowa City
English Literature.

Houser, Mrs. Hattie Riggs, B. Ph., 1899; Iowa City
English.

Hutchinson, Sarah Delia, B. Ph., 1883, M. A., 1889; Iowa City
Greek, Italian.

Mordoff, Carrie Ella, B. Ph., 1884; M. A., 1887; Iowa City
English.

Parker, Bessie Grace, B. Ph., 1893; Peoria, Ill.
English.

Rankin, Evangeline, B. Ph., 1888; Iowa City
English, History.

Seashore, Mrs. Roberta Holmes, Iowa City
B. Ph., 1891; M. A., 1893;
Scandinavian.

Sherwood, Mrs. Elizabeth Lewis, B. A., 1881; Iowa City
English.

Shuck, May, B. Ph., 1900; Iowa City
Education, English.

Slavata, Jennie Elizabeth, B. Ph., 1901; Iowa City
Latin, English.

Smith, Mrs. Grace Partridge, B. A., 1891; Greek.	Iowa City
Sterling, Mrs. Jessie Bowen, B. Di., 1861; English, Greek.	Iowa City
Swisher, Esther McDowell, B. A., 1901; English.	Iowa City
Teeters, Mrs. Helen Hollister, B. S., 1896: B. Ph., 1898, Mt. Union College; Geology.	Iowa City
Wickersham, Dorothy Irene, B. Ph., 1899, Botany, Physics, Education.	Capron
Wickham, Mrs. Fanny Thompson, B. S., 1890; M. S., 1895; Sociology.	Iowa City
Williams, Bertha Alice, B. Ph., 1888; French.	Iowa City

THE COLLEGE OF LAW

DEGREES CONFERRED JUNE, 1901

Abernethy, Herbert Alonzo,
B. A., University of Chicago
Allen, Robert Emmet
Ballou, Benning Edward
Balluff, Walter Martin
Barker, James Arthur, B. Ph.
Bartlett, Herbert Gallup
Beckman, Stephen Joseph
Bender, David Wilson
Berry, Edmund Charles
Blackburn, Newman Arthur
Blanchard, Emir E.,
B. Ph., Farmington College
Bossert, Burt Ellis
Bowen, Charley Edgar
Bradley, Charles Clark, B. A.
Brown, Arnold Elmer
Brown, Roy Chase
Brown, Samuel Joe, B. A.
Burton, Albert Johnson
Cotant, Charles Thomas
Crans, Norman Wallace
Dahms, Edward John
Daum, Philip Hugh
Davies, Edward Patrick
Davis, Frank T.
Dayton, Charles Houghton, B.S.
Dennis, William
B. Ph., Cornell College
Dewey, Charles Almon
Downing, Harold Bliss
Donegan, Maurice Francis,
M. A., Creighton University;
Ph. D., Georgetown Univer.
Eby, Moray Leon, B. S.
Edson, Willis Charles,
B. S., Iowa State College
Egan, George William, B. A.
Elliott, Jay Edward
Engle, Bert Jacob
Feely, Guy Anthony
Felton, Royal Bradley
Ferguson, Harry Jay
B. S., Cornell College
Ferson, Merton Leroy, B. Ph.
Fletcher, George Howard,
B. Ph.
Flynn, James Edward
Frank, Walter Clyde
Genung, Clyde Thompson
Gilmore, Jesse Melford
Gleason, Fred Brockway
Glenn, Jacob Frank
Grant, Franklin Ferdinand
Hall, Howard Morgan
Hamilton, Margaret Irving
Harding, Benjamin Philip
Harvey, James Francis
Hays, Charles Rolvin
Hayward, Roy Stanton,
B. Ph., Cornell College
Healy, Patrick Henry
Heimbeck, Adolph James
Helmer, Charles C.
Henderson, Frank Perrin,
B. Ph., Simpson College
Henderson, Lewis Willford
Hickman, James Harlan
Hildebrand, John Henry
Hinchon, William Davis
Holman, James Royal
Holmes, William Harrison
Holt, John Wesley, B. A.

Honeywell, Henry Jesse,
B. S., Upper Iowa University
Hospers, John W.
Humphrey, Charles William,
B. Ph.
Johnson, David Nicholas
Johnson, Julius Hougen,
B. A., Minnesota
Kaiser, Julius Herman
Kelley, Winfred Bishop,
B. A., Graceland College
Kindall, Joseph William, B. S.
Kingland, Thomas Andrew
Klahn, Charles
Klincker, Peter John, B. Ph.
Kridelbaugh, Joe Wilford
Kugler, Arthur Alexander
Lee, Leslie Parvin, B. Ph.
Lovell, Guye E.
McBurney, James Wayland
McCormick, James Leroy
McDonald, William Joseph
Manatt, Guy Sterling
Marshall, Lloyd Earl
Mason, Ralph Taylor
Miller, Nelson
Moore, William Franklin
Morse, James Warren
Moulton, Mark Mills, B. A.
Murphy, Edward Andrews
Murtagh, James Cyrus
Nelson, John Silford, B. Ph.
Niccolls, George Howard
Nickerson, Roy A.
Nies, Frank Knapp
Noland, Harry Boardman
Ogden, Raymond Davis, B. Ph.
Otis, Edmund Rufus
Patterson, James Grant, B. Ph.
Petersen, Walter Herman
Phelan, Daniel Edward
Powell, Thomas Brundige,
B. A., Denison University
Preston, Fred Alexis
Randall, McKercher John,
B. A., Cornell College
Rankin, Wiley Strange
Redden, Will Lester
Regan, John Peter
Remley, James Edward, B. Ph.
Robish, Willis Herbert,
B. S., Upper Iowa
Roedell, Robert Percy
Rue, Lars O.
Sargent, Frederick Wesley
Saunders, Herbert Clifford,
B. Ph.
Simonton, Thomas Milton,
B. Ph.
Smith, Frank Charles
Soesbe, Clarence William
Springer, William James, B. Ph.
Stover, George Elmer, B. Ph.
Stratford, Arthur Avon,
B. Ph., Coe College
Struble, Guy Treat
Suhr, John Christian
Sweet, Earl Chapin,
B. A., Cornell College
Tamisiea, Robert Shannon
[Franklin
Vaughn, Philip Timothy
Warner, Joseph Sylvester
Warner, Loren Ashley
Weaver, Walter Leroy
Wells, Frank, B. Ph.
Wells, Leonard Alva
Willett, William S., B. A.
Williams, LaMont Abner
Wissler, Edwin Arthur
Woodbridge, Chandler
Wright, Herbert Richard
Yaley, Horace J.
Young, Lafayette, Jr.,
B. Ph., Univ. of Michigan

THIRD YEAR.

Johnson, Eugene Gustave	Decorah.
B. A., 1898, Luther College.	
Johnson, Perry Spencer	Decorah.
B. A., 1899, Luther College.	
Murray, George Herman	Massena.
Nelson, George William	Davenport.
Orvis, Elmer Victor	Oskaloosa.
Owen, Lenton Warren	Spirit Lake.
Petrovitsky, Charles George	Cedar Rapids.
Scholz, Charles Emil	Guttenburg.
Stevenson, John Ogilvie, Jr.,	Waterloo.
Thurston, Lloyd Leonard	Osceola.

SECOND YEAR

Ahern, Timothy Joseph	Calmar.
Albee, Gustavus, Jr.,	Pleasant Prairie.
Artherholt, Luther Garfield	Shell Rock.
Arthur, Edwin Calhoun	Little Sioux.
Asthalter, Harold Charles	Muscatine.
Baker, Mark Emery	Iowa City.
Ball, George Washington, Jr., B. Ph., 1901	Iowa City.
Bannister, Robert James	Ottumwa.
Birss, George Alexander	Tipton.
Bordner, Richard L.	Jesup.
Bradley, Clifford E.	Rock Rapids.
Brose, Frank Verne	Ocheyedan.
Calkins, Guy Smith	Iowa City.
Clegg, Samuel Harvey	Ainsworth.
Coldren, Paul Alfred	Iowa City.
Converse, Charles Crozat, B. Ph., 1901	Cresco.
Cox, Clifford Vernard, B. Ph., 1901	Newton.
Crockett, Frank Walford	Iowa City.
Crum, William Edwin, Jr.,	Bedford.
Ellis, Dias Henry	Motor.
Engelke, Charles Rufus	Sidney.
Farquhar, S. Walter	Ida Grove.
Feely, Elmer Frank	Waterloo.
Fitzpatrick, Miles Joseph	Ft. Dodge.
Gifford, Judge Herbert Sheldon	Nevada.
Gillespie, John Leonard	Nevada.
B. S. of E. E., 1899, Iowa State College.	
Gurley, Zenas Robinson	Anamosa.

Hadley, Herbert Erwin	Badger.
Hanson, William Patrick	Williamsburg.
Harned, Luther Martin	Lone Tree.
Heminger, Amos Lincoln	Keosauqua.
Howell, George Key	Davis City.
Hull, Elmer Clapp, B. Ph., 1901	Iowa City.
Hunter, Charles Randall	Exira.
Hunter, John McCrary Griggs	Exira.
Huttenlocher, Forest	Des Moines.
Jackson, Thomas Sunter	Fayette.
B. S., 1900, Upper Iowa University	
Jones, Peter Henry	Manning.
Kelso, Charles David	Corydon.
Kenyon, Earl Dudley	Onawa.
Kirchner, Moreau Philip	Peterson.
Kitterman, John Taylor	Rock Rapids.
Kroger, Emil Tease	Princeton.
Lange, Louie Edgar	Laurens.
McClain, Donald, B. A., 1901	Iowa City.
McConnell, Arthur Harris	Iowa City.
McCulla, Walter Philo	Sutherland.
McElhinney, Roscoe Conklin	Dysart.
McElroy, Isaac Erwin	Pleasant Prairie.
McKenzie, John Augustus	Harlan.
MacLaren, William Gardner	Galva.
B. A., 1898, Iowa College.	
Maguire, Daniel Eugene	East Dubuque, Ill.
Mather, Carl Henry	Springdale.
B. S., 1900, Penn College.	
Medin, John Theodore	Kensett.
Miller, John William, Jr.,	Manning.
Moffett, James Sedan	Olin.
Morrison, Samuel Turner	Iowa City.
Mowry, Ross Rutledge	Baxter.
Negus, Henry	Iowa City.
Oakes, William Thomas	Clinton.
Packard, Walter Steel	Marshalltown.
Pomeroy, William Henry	Shelby.
Putnam, Clyde C.	Iowa City.
Ridle, William Bertran	Perry.
Risk, Loren	Stanley.
Rosenstone, Bertram W.	Iowa City.
Sherman, Fred	Rolfe.

Skinner, Bert Sydney	Moline, Ill.
Smith, Thomas Corwin	Logan.
Sullivan, Eugene John	Marengo.
Swift, John Loras	Riverside.
Thompson, Herbert Garfield	Muscatine.
Thompson, Ralph Ulysses	Muscatine.
Tourgee, John Birney	Arthur.
Van Ness, Edwin Jones	Williams.
Van der Ploeg, William Garfield	Otley.
Voogd, Dick	Aplington.
Walker, James Henry	Denison.
Walker, Robert Duncan	Denison.
Waterman, William Thomas	Davenport.
B. Ph., 1900, Iowa College.	
Wenner, Edward Jackson	Garrison.
Wilcox, William Henry	Rolfe.
Wilson, Carlton Charles	Washington.
Wood, Clarence Daniel	Milledgeville, Ill.
Yates, Edward Gilbert, B. Ph.	Williamsburg.

FIRST YEAR

Anderson, William Howard	Maplehill.
Barton, Harry Raymond	Estherville.
Bergman, Roy Earnest	Newton.
Brannan, Thomas Harbine	Muscatine.
Brinck, Dana Everett	Mt. Vernon.
Brown, Arthur Adney	Storm Lake.
Brown, Edwin Keech	Solon.
Burnett, George Ritter	Iowa City.
Burrus, James Harvey, B. A., 1901	Winterset.
Byers, Frank Crockett	Alden.
Cammack, William	Salem.
Campbell, Frank T.	Waterloo.
Chambers, James Robert, Jr.,	Vinton.
Clapp, Mortimer Edwy, B. S., 1901	Shelby.
Clark, Charles Vern	Osage.
Claussen, George	Clinton.
Cole, Franklin James	Mason City.
Cook, Roy Arthur, B. A., 1901	Independence.
Crary, Archie West	Boone.
B. S., 1897, Cornell College.	
Cross, John Eli	Ira.

Dare, Carl Luther	Osceola.
Diamond, Tobias Ellsworth	Orange City.
Drake, Fred Collins, B. Ph., 1901	Adel.
Dunham, Ralph Abner	Manchester.
Emmons, Orin William	Iowa City.
Estes, Joel Sydney	Thurman.
B. A., 1894, Lincoln Normal College.	
Fitzpatrick, Daniel Helen	Ft. Dodge.
Frieburger, Benjamin Franklin, Jr.	Manson.
Genung, Norman Seth	Glenwood.
Gray, Ross Calhoun	Rockwell City.
Greene, Harry Martin	Avoca.
Grinstead, Frank Leo	Kettle Falls, Wash
Haddock, Ross Boyd	Bedford.
Haines, Charles Henry,	Grinnell.
B. A., 1898, Iowa College.	
Hardy, Rufus Guy	Bloomfield.
Harris, Fred Elwon	Woodward.
Heald, Francis Alfred	Cresco.
Helin, Adolph	Marcus.
Humphrey, Benton Wade	Walford.
B. Ph., 1899, Cornell College.	
Irvine, Albert Elmer	Oelwein.
Johnson, Daniel Graham	Curlew.
Judy, George Thomas	Viele.
Kahler, Waldo Emerson	Traer.
Kelly, Daniel Matthew	Blessing.
Kenderdine, Glenn Albert	Lisbon.
Kepler, Louis Howard	Mt. Vernon.
Kimball, Frank Burton	Iowa City.
Klise, Harrold Edward	Baxter.
Koser, George Doner	Iowa City.
Kuck, Adolph Orlando	Charles City.
Kuhlemeier, Harry Floyd	Burlington.
Landsberg, Edward William	Iowa City.
Lane, Dick Richardson	Davenport.
Law, William Robert	Waterloo.
Linville, Guy Pittman	Carson.
Longueville, Oliver	Dubuque.
McCord, Ray Afton E.	Defiance.
McCoy, Edward Hugh	Dumont.
McCoy, Hugh Ben	Oskaloosa.
B. S., 1901, Iowa Wesleyan	

Mack, Guy Edgar	Storm Lake.
Martin, Charles, B. A., 1901, Dixon College	Spring Valley, S.D.
Martin, Charles Clayton	Nevada.
Martin, Frederick Alonzo	Muscatine.
Meighen, James Leroy	Newell.
Mercer, Herbert Miller	Burlington.
Miles, Matthew James	Cedar Rapids.
B. A., 1896, St. Mary's (Kan.); M. A., 1898, Georgetown University.	
Morris, Creslie Daniel	Winterset.
Nicholson, Harry Carl	Lamoni.
Norman, Charles John	Van Meter.
Norton, James Lee	Des Moines.
B. A., 1900, Des Moines College.	
Ochiltree, Henry Clyde	Morning Sun.
Pawelski, Joseph Francis	Neola.
Pettinger, Walter Thomas	Cumberland.
Ping, John Roy	Sperry.
Pruitt, William Curtis Earle	Iowa City.
Ratcliff, William Connor	Rolfe.
Ridgeway, William Bailey	Winfield.
Shannahan, Edwin Joseph	Holbrook.
Shorett, Judson Willard	Earling.
Smith, Tillman	Leon.
Spurgeon, Theodore	Iowa City.
Steele, Earl Newell	Perry.
Strong, Harold Beecher	Wilton Junction.
Stuart, Charles Edward	Chadwick, Ill.
Summerville, Robert James	Manning.
Swartley, Joseph Frank	Sterling, Ill.
Tobin, Richard Griswold	Fort Dodge.
Vaughn, John Thomas	Fort Dodge.
Walker, Stuart Phelps	Bewleyville, Ky.
Walters, Theodore Augustus	Updegraff.
B. S., 1900, Upper Iowa University.	
White, Wilmer Welrose	Panora.
Whiting, Samuel Danforth, B. A., 1896	Iowa City.
Wieben, Edward Emil	Dysart.
Wilkins, Glen Horatio	Glenwood.
Will, Charles Louis	Vinton.
Willett, James Horace, B. A., 1901	Tama.
Willging, Edgar Henry	Dubuque.
Yeager, Charles	Crawfordsville.

UNCLASSIFIED

Cotton, Richard Lee	Davenport.

Students in the College of Liberal Arts taking law as elective work.

Boddy, Marshall Vincent	Spencer.
Dykstra, Sylvester Henry	Pella.
Eller, Chester John	Pekin.
Henry, Carl Jeffrey	Butler, Mo.
Luhman, Frederick Henry	Postville.
Mark, John H.	Grand Meadow, Minn.
Mead, Ray C.	San Luis Obispo, Cal.
Minkel, Lewis Herman	Dysart.
Roberts, Carl Eckley	Butler.
Storck, Arthur Herman	Earlham.
Storey, Leslie	Iowa City.

COMBINED COURSE

Abbott, Frederick Hiram	Iowa City.
Brackett, Merritt	Iowa City.
Butler, Lindley Moses	Forest City.
Clearman, Rollen Ives	Iowa City.
Delavan, George Edwin, Jr.	Estherville.
Funson, Harry Shugart	Nevada.
Kirby, James Francis	Williamsburg.
Martin, John Weston	Fonda.
Remley, Alfred G.	Anamosa.
Williamson, Ralph Clinton	Iowa City.

THE COLLEGE OF MEDICINE

GRADUATES, 1901

Beach, Lena Alice
Beach, Melville Augustus
Belsheim, Andrew Gilbert
Blackmore, Ralph Davis, B. S., '99
Bullock, William Elmer
Cantwell, John Dalzell
Chapman, Horace Ray
Cretzmeyer, Charles H.
Daly, Maud Alice
Dotson, Eli E.
Fitzpatrick, Dennis Francis
Frank, Carl Schurz
Gifford, Andrew James
Harlan, Charles Davis
Harold, Arthur William
Hender, Alfred Baker
Hobbs, Samuel Warren B. Ph., '97
Jarvis, Fred Jackson
Kemmerer, Theodore Wilbert, B. S., '00
Krejsa, Oldrich
Lespinasse, Adolph Frederick [Henry de
Logan, Fred Wallace
Logan, Jay Augustus
Lowry, James David
Middleton, George McClelland
Morgan, Charles Henry
Morton, Lewis Burrows
Peterson, August John
Pringle, Jesse Alva
Puleston, Fred
Reiter, Alfred Ephraim
Sailor, Edwin Allen
Smith, Elizabeth
Van Gorden, Jesse Leland
Wescott, LeRoy Anderson, B. Di., '92; M. Di., '94, Iowa State Normal

FOURTH YEAR

Albert, Henry, B. S., '00	Reinbeck.
Anderson, Harry Nathaniel	Scranton.
Baer, Thomas Horatio	Ottumwa.
Chase, William Bronk	Des Moines.
Christensen, Christen Jensen	Garwin.
Clark, Alice May	McGregor.
Cooper, Jay Clark	Red Oak.
Day, William Elton	Dumont.
Dean, Ray Herbert, B. S., '99	Muscatine.
Dingman, Marshal Edwin	Urbana.
Donohoe, Anthony Patrick, B. S., '97	Iowa City.

Eaton, William Hammond, B. S., '00	Iowa City.
Free, Samuel Pratt	Rippey.
Fritschel, Godfrey Constantine	Waverly.
Graham, Dell Ewing	DeWitt.
Gray, John Franklin	Albia.
Greear, Clabe Baker	Five Oaks, Va.
Guldner, Ludwig Frederick	Davenport.
Harkness, Gordon Follette, B. S., '00	Iowa City.
Heinen, William Clark	Iowa Falls.
Henninger, Louis	Council Bluffs.
Hibbs, Fred Valentine	Lake City.
Lundvick, Arthur Wesley	Harcourt.
McAllister, Fred J.	Tipton.
Maresh, George	Iowa City.
Meigs, Benjamin Lyle	Malcolm.
Nervig, Isaac Eugene	Thor.
Pheasant, Leon Ray	Osceola, Neb.
Reppert, Lyell	Muscatine.
Scarborough, Bert Vergil	Grand Junction.
Schooley, Alfred Heaten	Muscatine.
Speers, Will Fred	Vinton.
Stanley, Clarence J., B. S., '96 Coe College	Whittier.
Starbuck, Thomas Davidson	Davenport.
Steelsmith, Daniel Clarence	Conrad.
Tamisiea, James Hugh	Missouri Valley.
Taylor, John Lealand	Dover, Ill.
Tilden, William Clark, B. S., '97, Iowa State College.	Ames.
Wells, James Harlan	Iowa City.
Werts, Charles Martel, B. S., '00	Russell.
Wiedow, Henry	Iowa City.

THIRD YEAR

Ainsworth, Adelaide Lorena	Ft. Dodge.
Angus, Haney Adelbert, B. S., '00	Algona.
Appel, Fred Lyons	Muscatine.
Beam, Hugh Atlee	Moline, Ill.
Bice, Gerald Roy	Troy Mills.
Braden, Austin Lynn	Mediapolis.
Buckmaster, Raleigh Ankeny	Jesup.
Burns, Thomas John	Manchester.

Bushnell, William Francis	Cedar Rapids.
Chamberlain, Ben H.	Wyoming.
Creswell, William L.	Reinbeck.
Cummings, William Cyrus	Hopkinton.
Downing, Leroy Morgan	Wellman.
Dulin, John Albert	Webster.
Fairall, Herbert Snowden, Jr.,	West Superior, Wis.
Frink, Raymond P.	Cushing.
Grothaus, Tarana Johanna	Buffalo Center.
Hetzel, Clarence Charles	Avoca.
Hoffman, Coleman Lovejoy	La Moille, Ill.
Hooker, Ira Sidney	Waverly.
Huston, Samuel Wesley	Wyman.
Jones, Henry Durst	Battle Creek.
Jones, Walter William	Eddyville.
King, Oran West	Vinton.
Lambert, Charles Irwin,	Cedar Falls.
M. Di., '97, Iowa State Normal;	B. S., '01
McCall, Harry Ernest	Berkley.
McClure, Ernest Covey	Oskaloosa.
Meyers, Jacob Franklin	Lisbon.
Moon, Roy	Bricker.
Murchison, Kenneth	Griswold.
Murphy, Thomas William	Lawler.
Murphy, William Linett	Long Grove.
Nims, Edward Albert	Boone.
O'Connor, Maurice Joseph	Independence.
Porter, Roy Samuel	Moline, Ill.
Redmond, John Patrick	Dysart.
Robinson, Reuben Artman	West Union.
Shaffer, Carl John	Centerville.
M. Di., '97, Iowa State Normal.	
Shiley, George Francis	Missouri Valley.
Wagner, William Christian	Vinton.
Washburn, Frank Augustus	Mt. Pleasant.
B. A., '96, Battle Creek, Michigan.	
Welsh, Thomas William	Iowa City.
West, George Humphrey	Iowa City.
B. Sc., '99, So. Dakota Agricultural College.	
Whitaker, Ellis John, A. B., '96	Davenport.
Wolfe, Channing Elmer	Panora.
Young, James Myron	Center Junction.

SECOND YEAR

Allen, Roy William	Marshalltown.
Baldwin, Clare C.	New Sharon.
Black, Robert Alfred	Wyman.
Blythe, Edward Ellsworth	Williamsburg.
Boots, Frederic Warner	Linden.
Bowman, Howard Edgar	Iowa City.
Briggs, Stewart Daniel	Los Gatos, California
B. A., '92, M. A., '93, Leland Stanford, Jr., University.	
Brown, Florence Emily, B. Ph., '92	Marengo.
Brown, Francis Henry	Elwood.
Colburn, William Orlin	Dexter.
Coulthard, George Harry	California.
Crane, Edward Harrison	Battle Creek.
Crane, Eudell Thomas	Battle Creek.
Cressler, Frank Earnest	Scranton.
Danell, Karl August	Rock Island, Ill.
B. A., '00, Augustana	
Day, Archie Loraine	Mt. Pleasant.
Dunn, James	Clinton.
Dunn, John Edward	East Orange, N. J.
Edmonds, William Frank	Dysart.
Evans, Frank Butler	Arion.
Ferry, Herbert Works	Geneseo, Ill.
Fitz, Joseph Hamilton	Panora.
Foulk, Frank Erastus	Waterloo.
Gannaway, Charles Robertson	Panora.
Gordon, William Null	Traer.
Gray, George Henry	West Union.
Gray, Oscar Sylvester	West Union.
Hagan, John	Independence.
Hagan, Martin	Independence.
Hearst, George Edward	Cedar Falls.
Houser, Cass Thomas	Urbana.
Irwin, Perle Clifton	Fairfield.
Jones, Harry Jacob	Wellman.
King, Charles J.	George.
Klein, Adam Raymond	Iowa City.
Kulp, Ray Ranney	Davenport.
Lowis, William John	Dexter.
Lyon, John Dexter	Dexter.

Martin, Thomas Edwin	West Bend.
Martindale, William Harvey	Dayton.
Middleton, Edward Duncan	Davenport.
Murphy, John Campbell	Long Grove.
Naftzger, Jesse Blaine	West Liberty.
Nolte, Willis Clever	Dexter.
Ostling, Carl August	Des Moines.
Overholt, Roscoe Earl	Columbus Junction.
Pease, Herbert	Collins.
Peters, Fletcher Edward	Dunlap.
Redmond, Thomas Michael	Dysart.
Reinemund, Charles Adam	Muscatine.
Robb, Robert Worth	Linton.
Rosenbladt, Fritz	Bayard.
Rowe, Frank Noyes	Iowa City.
Rust, Emery Andrew	Newell.
Safley, Agnes Isabel, B. S., '99	Tipton.
St. Clair, Frank Earl E.	Hampton.
B. S., '01, Des Moines College	
Sauerbry, Frank Carl	Strawberry Point.
Schroeder, Peter Herman	Iowa City.
Schug, George	Strawberry Point.
Sebern, Richard Clyde	Lake City.
Seymour, Sarah Libbie	Iowa City.
B. A., '97, M. A., '00	
Shahan, Richard Franklin	Avery.
Shearer, William Alexander	Clarence.
Sherman, Benjamin Harry	Rolfe.
Siberts, Frank Leslie	Mt. Pleasant.
Smeltzer, Cora Hulda	Washington.
Smith, Charles Leonard, B. A., '91	Iowa City.
Smith, William Francis	Iowa City.
Souders, John Cloyd	Rock Island, Ill.
Sullivan, Lawrence Francis	Downey.
Swab, Charles Casper	Cedar Rapids.
Swift, Charles Henry	Lodgepole, Neb.
Talcott, Don Deroy	Arion.
Teufel, John Carl	Moscow.
Thierman, Ernest Julius	Cedar Falls.
Turner, Edward Marsh	Iowa City.

FIRST YEAR

Atkins, George Leslie	Spirit Lake.
Averkieff, Olga	Vermillion, S. D.
Bailey, John William	Iowa City.
Bernatz, Clarence Frank	West Union.
Besore, Albert Leroy	Ida Grove.
Blackmore, Harriett Narcissa	Aplington.
Blair, Fred Leroy	Yetter.
Bowers, Bert Alfred	Paullina.
Bowie, Louis Lee	Atalissa.
Brackney, Herman John	Washta.
Brown, Joe Wesley	Atlantic.
Burk, Frank Oscar	Davenport.
B. A., '01, Augustana	
Busta, Charles	Manley.
Carder, Clinton Shrader	Iowa City.
Carhart, Earl Clyde	Mapleton.
Christenson, John August	Jamestown, N. Y.
B. A., '00, Augustana	
Christiansen, Jens	Waterloo.
B. Di., M. Di., '01, Iowa State Normal	
Cline, Clifford M.	Cumberland.
Collins, Joseph Sylvester	Geneseo, Ill.
Conmey, Roy Merrill	Wyoming.
Crouch, John Baker	Davenport.
Curtis, Walter Pingree	Independence.
Duckett, Harold	Utica, N. Y.
Duncan, James Todd	Albia.
Dunkel, George Kaspar	Iowa City.
Echternacht, Arthur Charles	Mechanicsville.
Ellyson, Charles Wright	West Liberty.
Ericsson, Charles Melvin	Dayton.
Etzbach, Joseph Frank	Mendota, Ill.
Fallows, Howard Daniel	Waucoma.
Fox, Walter Henry	West Union.
Goff, Harry LeRoy	DeWitt.
Griffin, Frank Leo	Monmouth.
Hall, Ray Edwin	Webster City.
Hands, Sidney Gillott	Iowa City.
Happe, Francis Alfred	Grandville.
Heard, Mary Kathrina	North East, Pa.
Ph. C., '92, University of Michigan	

Hexom, Johan Daniel	Washington Prairie.
Housholder, Harold A.	Stockport.
Howell, James Roland	Reinbeck
Howell, John Bert	Davis City.
Hummer, Leo Francis	Iowa City.
Jaenicke, Kurt	Clinton.
Johnson, Harold Herbert	Wilton Junction.
Kahler, Hugo Victor	Traer.
Kidd, Floyd Snelson	Iowa City.
King, Thomas Andrew, Jr.,	Monticello.
Krider, Edward Edson	Waterloo.
Long, Thomas Lee	Cherokee.

B. Di., '00, Iowa State Normal

*Lynn, Arthur Ray	Iowa City.
McCoy, Bernard Eberth	Corydon.
McDill, Wilson Fullenwider	Creston.
Mason, Roy Earl	Albia.
Morton, William Glasspell	Iowa Falls.
Murphy, Frank Eugene	Iowa City.
Nimocks, Sara Ausbon	Ida Grove.
Noland, Clyde Amandee	Boone.
Okerstrom, Albert	Anoka, Minn.

B. A., '98, Augustana College

Pfeiffer, Harry Earl	Independence.
Polevoy, Nina Dmitrievna	Vermillion, S. D.
Potter, William Wolcott	Lone Tree.
Prescott, Lee Washbon	Sioux City.
Richey, Albert Roy	Lone Tree.
River, Edward Burleigh	Cresco.
Rochford, Thomas James	Sumner.
Sells, Benjamin Bert	Independence.
Sheehan, Edward Michael	Independence.
Smith, Roy Wells	Nevada.
Soper, Fred Clifford	Mt. Vernon.
Stelling, Charles Henry Andrew	Iowa City.
Stockdale, Charles Paul	Lowder, Ill.
Stoltenberg, Walter Peter	Shelby.
Thomas, Clarence I.	Cresco.
Thompson, James Reed	Shell Rock.
Thornburg, William Vestal	Linden.
Van Metre, Richard Thompson	Waterloo.

* Transferred from the College of Dentistry.

Vaughan, Claude Luverne	Coon Rapids.
Violette, Josiah Claire	Winterset.
Weir, Matt Blakely	Cumberland.
Whaley, Guy Vernellen	Dow City.
Whicher, William Edward	Columbus City.
Willits, Ira Raymond	Keithsburg, Ill.
Wolverton, William Curtis	Ft. Dodge.
Yavorsky, George William	Iowa City.

UNCLASSIFIED

Arnett, Lillie Amanda	Springhill, Ill.
McDermott, Peter John	Iowa City.
Morgan, Mabel Ruth	Bunker Hill, Ill.
Strong, Leander James	Iowa City.
Tollifson, Thomas Franklin	Graettinger.
Whitmore, Clara B., B. A., '00	Fairfield.

COMBINED COURSE

Ball, Walter McDowell	Iowa City.
Clark, William Clarence	McGregor.
Coburn, Robert Leroy	Carroll.
Gonterman, Emery Oliver	County Line.
Hanson, Clarence Henry	Ft. Dodge.
Hayden, Clara May	Eldon.
Hoover, Alden Hobbins	Muscatine.
Joynt, Martin John	Emmetsburg.
Krause, Charles Schutz	Garwin.
Love, Francis Leonard	Manson.
Taylor, Maude Estella	Montezuma.
Walsh, John Graney	Perry.

THE NURSES' TRAINING SCHOOL

Fullmer, Jessie Noggle	Marshalltown.
Johnson, Jennie	Lake City.
Leseur, Nancy	Olathe, Kan.
McWilliams, Martha Fern	Cedar Rapids.
Martin, Bernice Fidelia	West Union.
Matthews, Ora Ermina	Olathe, Kan.
Moore, Letta	Des Moines.
Schley, Freda Claire	Cedar Rapids.
Somes, Candace Amelia	Stanwood.
Soper, Mrs. Isabel Johnston	Stanwood.
Turk, Helen	Little Rock.
Wagner, Hariette Daisy	Des Moines.
White, Edith Emerson	Marion.
White, Rena E.	Marion.
Wilantt, Altah Alethea	Iowa City.

THE COLLEGE OF HOMŒOPATHIC MEDICINE

DEGREES CONFERRED APRIL, 1901

Anderson, George William	Pond, Issi Otto
Babcock, Elmer	Richards, Frank O.
Kauffman, Edward Charles	Sarchet, George A.
Kemp, Everett D.	Snitkay, Charles John
Launder, Frank Trowbridge	Stoakes, William H.
Martin, Hobart Earle	Wenzlick, George John
Musgrave, George James	Wilkinson, Landy Abner
Parsons, Percy Leigh	Winters, Louis Ernest

FOURTH YEAR

Alden, George H.	Des Moines.
Clapp, Archie Burwell	Davenport.
Cogswell, Charles Herbert, Jr., B. S. '01	Cedar Rapids.
Crew, Arthur Ellwood	Marion.
Fullmer, Burt Emerson	Marshalltown.
McDowell, Gilbert Thompson	Woonsocket, S. D.
Page, Clarence Vernon, B. A., '01	Iowa City.

THIRD YEAR

Beatle, Charles Andrew	Waterloo.
Bywater, Edward Napoleon	Garwin.
Graves, Rex Vale	Hillsboro.
Holman, Henry Delavan	Rockwell.
Huff, Ellsworth Abram	Iowa City.
Jackson, Anna	Oskaloosa.
Keaster, Joseph Bruce	Lancaster.
Kemp, Malcolm Edwin	Toledo.
Owen, William Roy	Osage.
Sandy, Benjamin Brooks	Lake City.
Waltman, William Henry	Iowa City.
Wild, Peter Rowland	Toledo.

SECOND YEAR

Adrian, Frank	Sigourney.
Bond, David Kline	Lake City.
B. S., Iowa State Normal	
*Carson, James Alexander	Maquoketa.
Greene, Lynne Birdsall	Reinbeck.
Hand, George	Hay Spring, Neb.
Hill, George Ray	Fayette.
Humeston, Frank Enos	Union.
Jacobson, Robert Andrew	Lake View.
Lintleman, Fred Richard	Lake City.
Loizeaux, Charles Edward	Des Moines.
Loizeaux, Leon Samuel	Des Moines.
Rowat, Harry Lewis	Des Moines.
Snavely, John L.	Sterling, Ill.

FIRST YEAR

Clark, Carl George	Scranton.
Ingersoll, Perry Grant	Toledo.
Kaufman, Ernest Leslie	Bridgewater.
Macomb, Thomas T.	Paullina.
Maurer, Harvey Charles	Beloit, Wis.
Okerlin, Oscar William	Boone.
Parsons, Harry Clifford	Elberon.
Young, Frank Glynn	Paullina.

COMBINED COURSE

Cogswell, John Wilkinson	Cedar Rapids.
Royal, Malcolm Allen	Des Moines.

* Partial course.

THE NURSES' TRAINING SCHOOL

Brady, Anna Mabel	Mandan, N. Dak.
Brown, Adelyn Ethel	Cedar Rapids.
Dean, Almeda B.	West Branch.
Dodge, Vera Belle	Cedar Rapids.
Waverly, Emmaline Marie Mether	Cedar Rapids.

THE COLLEGE OF DENTISTRY

DEGREES CONFERRED JUNE, 1901

Benson, Graud Clarence
Birchard, Thomas Leone
Cameron, William John
Cannom, Willis Lloyd
Carpenter, Lockwood Dickerson
Chamberlin, Lewis
Davis, John Allen
Davis, John David Carson
Dewey, James Baker
Faber, Arthur Julius
Fraser, Milfred Orby
Gilbreath, Frank Milton
Godlove, Lester Linn
Hamil, Melvin Preston
Hammer, William Ulysissis
Hecht, Ralph Henry
Houser, David George
Kier, George Paul
Lange, Frank X.
Lundy, Luther Thomas
Macfadden, Cornelius
[Centennial
Maxon, Lon J.
Moore, Charles Aden
Moore, Rolland Bruce
Morrison, Jefferson Code
Morton, Raymond Archibald
Moss, Solomon
Naibert, Wencil Frank
Pringle, George Arthur
Reed, George Earl
Schrader, Elmer Anthony
Shane, Charles Newton
Tilton, Charles Franklin
Tourtellot, Louis J.
Wait, Theodore Franklin
Woolverton, Ella Gennevieve
M. D., '95

PRACTITIONERS' COURSE

McKinley, Archibald Daniel, D. D. S., '98 Iowa City.

THIRD YEAR

Allen, Henrietta Frances	Pennsylvania.
*Byers, Robert Emmett	Iowa.
Cook, Harry Delmar	Iowa.
Cress, George	Iowa.
Daly, Eunice Elizabeth	Iowa.
Detwiler, Caroline	Iowa.
Dunning, Walter Lyle	Iowa.
Harris, Cleo Stanley	Iowa.

*Transferred from Keokuk Dental College.

Herbert, Vane Eli	Iowa.
Hildebrand, Joseph Arthur	Iowa.
*Hopkins, Anna	Minnesota.
Housholder, Frank Leroy	Iowa.
Jeffers, William Joseph	Iowa.
Johnson, Archie D.	Iowa.
Kain, William Edward	Iowa.
Lee, Arthur C.	Iowa.
†Lespinasse, Adolph Frederick de	Iowa.
Lewis, LeRoy Ward	Iowa.
Lingo, Arthur Marling	Iowa.
**Lynn, Emery Collins	Iowa.
Meyer, Charles Edwin	Iowa.
Miner, Cora Rebecca	Iowa.
Morris, Robert C.	Iowa.
Mueller, Henry Christian	Iowa.
Munger, Francis Elbriggs, Jr.,	Iowa.
Oven, Adelbert Otto von, Jr.,	Iowa.
Porter, James Tudor	Iowa.
Reedy, Edward Hager	Nebraska.
Roth, Jay Arthur	Iowa.
Rupp, Hugh	Iowa.
Sherer, Roy Eugene	Iowa.
Sherman, William Arthur	Iowa.
Small, Berton Alonzo	Iowa.
Spence, William Everett	Iowa.
Stimmel, Edgar Clifton	Iowa.
Suthers, Wilfie Abraham	Iowa.
Thode, Guy Eugene	Iowa.
Volland, Roscoe Henry	Iowa.
Waud, Clarence Cary	Iowa.
Weiland, Frank Henry	South Dakota.
†Witter, Louis Agassiz	Iowa.
Yeoman, Mitchell Brice	Iowa.

SECOND YEAR

Ackert, Charles Barton	Iowa.
Bailey, Edgar	Iowa.
Beckman, Fritz Smith	Minnesota.
Beeman, Clarence Evander	Iowa.

* Transferred from Marion Simms Dental College.
** Transferred from Northwestern Dental College.
† Left on account of illness.

Bell, Frank Joseph	South Dakota.
Bigger, Lee Fisk	Iowa.
Brown, Charles Frederick	Iowa.
Brown, Clarence Aubrey	Iowa.
Brown, Roy Lawrence	Iowa.
Clark, Floyd Chester	Iowa.
*Clemmer, John J.	Iowa.
Crose, Reuben Brooks, Jr.,	Iowa.
Crowell, Irving Gardner	Wisconsin.
DeGroff, Paul Burritt	Illinois.
DeLano, Courtland Alva	Iowa.
Duncan, Warren	Iowa.
Ellis, Gideon Charles	Iowa.
English, William Kirk	Minnesota.
Fordyce, Chester	Iowa.
Gallagher, Oscar Harley	Iowa.
Green, Oliver Nelson	Iowa.
‡Harned, Calvin Waldo	Iowa.
Harper, Albert S.	Iowa.
Harvey, Charles Marvin	Iowa.
Hemminger, Dave Mitten	Pennsylvania.
Hiett, Will Merriam	Iowa.
Horrabin, Alfred	Iowa.
Houser, Harry Pirnetti	Iowa.
Keehl, Walter Edward	Iowa.
Kepford, Joseph Clarence	Iowa.
Kinner, Major Ransom	Iowa.
Lange, Henry Frederick	Iowa.
Meade, William Joseph	Iowa.
‡Miller, George Roscoe	Iowa.
Port, Charles Franklin, Jr.,	Iowa.
Quaife, Howard Herman	Iowa.
‡Salisbury, Fred Garfield	Iowa.
Sawyer, Bert Ray	South Dakota.
Shannon, Howard Richie	Iowa.
‡Smith, Will Samuel	Iowa.
Swan, Charles James	South Dakota.
Taylor, Maurice Hume	Illinois.
Williams, Samuel Clyde	Iowa.
Wyckoff, Craton	Iowa.

* Transferred from University of Minnesota College of Dentistry.
‡ Irregular in attendance.

FIRST YEAR

Addington, Earl	Iowa.
Bandy, John William	Iowa.
Barrett, John Frederick	Iowa.
Bidwell, Everett	Iowa.
Bowers, Charles Kingsley	Iowa.
Brennan, James Clarence	South Dakota.
Brock, Albert Jay	Iowa.
Burns, John Joseph	Iowa.
Cole, Alvernus Humphrey	Iowa.
Collins, Bert Johnson	Iowa.
Cutler, Earl Van Zile	Iowa.
Doe, Charles Madison	Iowa.
Duncan, Alvia Lee	Iowa.
Eberhart, Frank Vaughan	Iowa.
Erb, Benjamin H.	Iowa.
Fear, Milo Francis	Iowa.
Fitzgerald, Emerson Godfred	Iowa.
Frahm, Frederick William	Iowa.
Gardner, Charles Edward	Iowa.
Goldthwait, Guy Garfield	Iowa.
Gray, Mrs. Letha Maus	Nebraska.
Harmon, James Benjamin	Iowa.
Harris, Madison Curtis,	Oregon.
B. A., '98, University of Oregon.	
Hasek, Frank Vaclav	Iowa.
Hemsworth, Leroy Cliftain	Iowa.
Hinsdale, Henry Vaughan	Iowa.
Hitchcock, Norris Asa	Nebraska.
Huff, Fay Leslie	Iowa.
Humphrey, William Francis	Iowa.
Irwin, James Newton	Iowa.
Kennedy, James	Illinois.
Kulp, Charles Joseph	Iowa.
Loomis, Edgerton Fay	Iowa.
*Love, Dorance Timothy	Iowa.
‡Lynn, Arthur Ray	Iowa.
McConnaughey, Ralph Otis	Iowa.
McCulla, Roy	Iowa.
McIntosh, Walter Scott	Iowa.

* Transferred from College of Pharmacy.
‡ Transferred to College of Medicine.

McKibbin, George Paul	Iowa.
McQuillen, Edward	Iowa.
McVay, Homer Reese	Iowa.
Magruder, George Raymond	Iowa.
Maresh, Reginald	Iowa.
Maris, Charles Elmer	Iowa.
‡Miller, Catherine Marguerite	South Dakota.
Moss, William George	Iowa.
Munger, Milo William	Iowa.
‡Nelson, Grayce Belle	Iowa.
Nies, George Henry	Iowa.
Pelton, Henry Clark	Iowa.
Rawhauser, Charles David	Iowa.
Rugh, Frederick Walter	Iowa.
‖Sanford, Jay Garfield	Iowa.
*Shannon, Rex L.	Iowa.
Shontz, Robert Ivan	Iowa.
Shumway, Herbert Garfield	Iowa.
Starbuck, William Ray	Iowa.
Story, William Henry	Iowa.
Taylor, Edwin Scott	Iowa.
Thompson, Earl G.	Iowa.
Tinker, Francis Enos	Iowa.
Vos, John	Iowa.
Watros, Ray Alfonso	Iowa.
Wesley, Rolland DeWitt	Iowa.
Westenhaver, Earl H.	Iowa.
Wiese, Charles Arthur	Iowa.
Wiler, Wesley David	Iowa.
Woodbridge, Ned	Iowa.
Woodruff, Lyman Wallace	Iowa.
Wright, Charles Thomas	Iowa.
Wyant, Arthur C.	Iowa.
Young, Joseph LeRoy	Iowa.

*Transferred from College of Pharmacy.
‡Irregular in attendance.
‖In attendance three months only.

THE COLLEGE OF PHARMACY

DEGREES CONFERRED APRIL, 1901

Broodeen, Luther Leroy,
B. S. '99, Augustana College
Coye, Charles Horton
Deur, William Eugene
Gates, Roy Homer
Harvey, James Raymond
Holt, Stephen Albion
Hormel, Eckert Emil
Horton, Grant
Joy, Nelle Frances
Loucks, Grace
McMurray, Charles Azariah
Mack, Charles Leonard
Morgan, John Walter
Schalekamp, Henry James
Senn, John William Henry
Stayskal, Joseph

SECOND YEAR

Barkdoll, Bertram Eugene	Vinton.
Blowers, Herbert Bert	Waterloo.
Bruhn, Otto John	Reinbeck.
Coye, Elmer Lucius	Carson.
Crooks, Lloyd Alexander	Quasqueton.
Devine, Terry	Danbury.
Ford, Lawrence Thomas	Ottumwa.
Goodall, John Albert	South Omaha, Neb.
Hanzlik, Paul	Cedar Rapids.
Hild, Harry	Toledo.
Hill, Albert Ernest	Greene.
Jeppson, Alvin Levin	Meade, Neb.
Junger, Paul Hugo	Reinbeck.
Longwell, Albert Floyd	Wellman.
Loucks, Richard Collier	Danbury.
Nixon, Andrew Wallace	Geneseo, N. Y.
Norton, Guy Coe	Livermore.
Shull, Harry White	Galesburg, Ill.
Strong, Harry Lee	Vinton.
Sullivan, Peter Francis	Jackson, Neb.
Swain, Jay Wheaton	Humboldt.
Van den Berg, Guy	Alton.

FIRST YEAR

Bellows, Fred Eugene	Waukegan, Ill.
Book, John Ray	Griswold.

Brown, Adin Noyes	Missouri Valley.
Coad, William Ansley	Hull.
Coffman, Walter Thomas	South English.
Collins, Elizabeth Grace	Livermore.
Dugdale, Jack McClure	Mt. Pleasant.
Duncan, Claud Earl	Iowa City.
Elgin, John Fred	Centerville.
Gilmour, Edwin Pilling	Ewing, Neb.
Hanlon, Frank John	Waterloo.
Hanson, John Foss	Ft. Dodge.
Head, Scott Wilson	Abingdon, Ill.
Humphrey, Charles Manley	Eldorado Spr'gs. Mo.
Jaeger, Anton C.	Independence.
Knox, Samuel Thomas	Coggon.
Knutson, Theodore H.	Calmar.
Lamborn, Walter Alexis	Griswold.
Larson, James Emanuel	West Branch.
Lohmann, Fred Christ	Wheatland.
*Love, Dorance Timothy	Manson.
McLennan, John Sailor	Anita.
Marquardt, Louis Henry William	Avoca.
Martin, Samuel Vincent	Bancroft, Neb.
Nixon, Samuel Ross	Clarinda.
Oliver, Carl Fred	West Burlington.
Pratt, Frank Edward	Shellsburg.
Putnam, Charles Sylvester	Hull.
Reid, Herbert B.	Indianola.
Rice, Arthur Henry	Mendota, Ill.
Riemcke, Charles August	Muscatine.
Rink, Arthur Francis	Geneseo, Ill.
*Shannon, Rex L.	Shellsburg.
Way, Clarence Logan	New Sharon.
Webbles, William Fred	Wheatland.
Zimmerman, Charles Joseph	Waterloo.

*Transferred to College of Dentistry.

SUMMARY OF REGISTRATION

THE COLLEGE OF LIBERAL ARTS

FOURTH YEAR	MEN	WOMEN	TOTAL
Classical	19	10	29
Philosophical A	3	18	21
Philosophical B	25	15	40
Scientific	14	2	16
Scientific and Medical	2	0	2
Civil Engineering	4	0	4
Total	67	45	112
THIRD YEAR			
Classical	10	14	24
Philosophical A	5	10	15
Philosophical B	13	10	23
Scientific	7	4	11
Scientific and Medical	3	0	3
Civil Engineering	11	0	11
Electrical Engineering	1	0	1
Mining Engineering	2	0	2
Total	52	38	90
SECOND YEAR			
Classical	7	4	11
Philosophical A	5	14	19
Philosophical B	25	24	49
Scientific	17	7	24
Scientific and Medical	3	1	4
Scientific and Homoeopathic Medical	2	0	2
Civil Engineering	7	0	7
Electrical Engineering	2	0	2
Mining Engineering	2	0	2
Total	70	50	120

FIRST YEAR

Classical	19	15	34
Philosophical A	12	21	33
Philosophical B	52	32	84
Scientific	24	8	32
Scientific and Medical	3	1	4
Civil Engineering	21	0	21
Electrical Engineering	4	0	4
Total	135	77	212
Total in four college classes	324	210	534
Unclassified students	25	44	69
Projected segistration	4	0	4
Professional students taking elective work	61	4	65
Summer Session, 1901	50	85	135
Total	140	133	273
Total in College of Liberal Arts	464	343	807

THE GRADUATE COLLEGE

Candidates for the degree of Ph. D.	14	2	16
Candidates for the degree of M. A.	44	17	61
Candidates for the degree of M. S.	25	4	29
Candidates for the degree of C. E.	2	0	2
Candidates for the degree of M. E.	1	0	1
Students not candidates for degrees	1	20	21
Total	87	43	130

THE COLLEGE OF LAW

Third Year	10	0	10
Second Year	85	0	85
First Year	98	0	98
Unclassified	1	0	1
Combined Course	10	0	10
Students in College of Liberal Arts taking elective work	11	0	11
Total	215	0	215

THE COLLEGE OF MEDICINE

Fourth Year	40	1	41
Third Year	44	2	46
Second Year	72	4	76
First Year	79	5	84
Unclassified	3	3	6
Combined Course	10	2	12
Nurses' Training School	0	15	15
Total	248	32	280

THE COLLEGE OF HOMOEOPATHIC MEDICINE

Fourth Year	7	0	7
Third Year	11	1	12
Second Year	13	0	13
First Year	8	0	8
Combined Course	2	0	2
Nurses' Training School	0	5	5
Total	41	6	47

THE COLLEGE OF DENTISTRY

Practitioners' Course	1	0	1
Third Year	37	5	42
Second Year	44	0	44
First Year	69	3	72
Total	151	8	159

THE COLLEGE OF PHARMACY

Second Year	22	0	22
First Year	35	1	36
Total	57	1	58
Grand total including duplicates	1263	433	1696
Duplicates	146	38	184
Total excluding duplicates	1117	395	1512

ALPHABETICAL LIST OF STUDENTS

In this list abbreviations are used as follows—

c.—Combined Course.
D.—The College of Dentistry.
G.—The Graduate College.
H.—The College of Hom. Medicine.
L.—The College of Law.
L. A.—The College of Liberal Arts.
M.—The College of Medicine.
n.—Nurses' Training School.
P.—The College of Pharmacy
p. r.—Projected Registration.
S.—Summer Session.
u.—Unclassified.

Matriculation numbers precede the names. Other numbers refer to classes.

1687	Aardappel, Walter	L. A. 1
2089	Abbott, Frederick Hiram	L. A. 4; L. 1
1961–	Abernethy, Clara Louise	L. A. 4
266–	Achenbach, Naomi	L. A. 4
216	Ackert, Charles Barton	D. 2
1752–	Adams, Mary Annette	L. A. 1
1574	Addington, Earl	D. 1
876	Adrian, Frank	H. M. 2
1268	Ahern, Timothy Joseph	L. 2
211–	Ainsworth, Adelaide Lorena	M. 3
577	Albert, Fred, Jr.	L. A. 3
72	Albert, Henry	M. 4; G.
93	Alden, George H.	H. M. 4
948	Alford, Lore	L. A. 2
560	Allbee, Gustavus, Jr.,	L. 2
2087–	Allbee, Margaret Malvina	L. A. u.
2005	Allen, Burritt Steward	L. A. 1
9–	Allen, Henrietta Frances	D. 3; L. A. 4; S.
1714	Allen, Ray Wallace	L. A. 4
490	Allen, Roy William	M. 2
1688–	Allstrand, Mae Belle	L. A. 1
1500–	Anders, Mrs. Florence	S.
1844	Anderson, Harold Charles	L. A. 1
440	Anderson, Harry Nathaniel	M. 4
1037–	Anderson, Laura	S.
443	Anderson, Rudolph Martin	L. A. 3; S.
765	Anderson, William Howard	L. 1; L. A. u.
1578	Andrews, Alfred Morse	L. A. 1
151	Angus, Haney Adelbert	M. 3

1629–	Ankeny, Alice	G.
465	Anthony, Charles Henry	L. A. 4
519	Appel, Fred Lyons	M. 3
563–	Arnett, Lillie Amanda	M. u.
1243	Artherholt, Luther Garfield	L. 2
1031	Arthur, Edwin Calhoun	L. 2; L. A. u.
2082–	Ashby, Esther Alma	L. A. u.
1510–	Ashby, Evelyn Jane	S.
259	Asthalter, Harold Charles	L. 2
1873	Atkins, George Leslie	M. 1
1557–	Averkieff, Olga	M. 1
1127	Baer, Thomas Horatio	M. 4
980	Bailey, Edgar	D. 2
667	Bailey, Frederick William	S; G.
2115	Bailey, John Tyley	G.
275	Bailey, John William	M. 1
601–	Bailey, Katherine Ethel	L. A. 4
1945	Bailey, Will Josiah	L. A. 2
957–	Baker, Florence	L. A. 2
1448	Baker, Irving Wesley	G.
1074	Baker, Mark Emery	L. 2
166	Baldwin, Clare C.	M. 2
745	Ball, George Washington, Jr.	L. 2
1466–	Ball, Marguerite Adell	S.
790	Ball, Walter McDowell	L. A. 1; M. c.
1785–	Ballard, Eugenia Marie	L. A. 1
1548	Ballard, George Henry	S.
604–	Ballard, Mary Elizabeth	L. A. 2
1359–	Balle, Sophia Margaret	L. A. 2
1995	Bandy, John William	D. 1
663	Bannister, Robert James	L. 2; L. A. u.
1372–	Barber, Myrtle	L. A. 4
168	Barkdoll, Bertram Eugene	P. 2
1805	Barker, Erwin Jeremiah	L. A. 1
1522–	Barnett, Eliza Frances	S.
547	Barr, William Milton	L. A. 4
776–	Barrett, Anna Moore	L. A. 4
1564	Barrett, Edward Cecil	L. A. 1
1581	Barrett, John Frederick	D. 1
226	Bartholow, Claude Alpheus	L. A. 2
1140	Barton, Harry Raymond	L. 1
1417	Bartsch, Paul	G.

1498–	Batman, Anna	S.
1412–	Baughman, Ruby	G.
206	Baughn, Wilmot Lawson	L. A. 2
595	Beam, Hugh Atlee	M. 3
12	Beatle, Charles Andrew	H. M. 3
1780	Beatty, Floyd James	L. A. 1
1757	Beatty, Floyd Seydel	L. A. 1
1696–	Beauchamp, Bertha Ewing	L. A. 1
262	Beaulieu, Leo Victor	L. A. 2
1151	Beck, William Edmund	G.
649	Beckman, Fritz Smith	D. 2
924	Bedford, Lyman Daniel	L. A. 2
199	Beeman, Clarence Evander	D. 2
373	Bell, Frank Joseph	D. 2
573	Bell, William B.	L. A. 4
2076	Bellows, Frederick Eugene	P. 1
992–	Bemis, Frances Perl	L. A. 4
1383	Bergman, Roy Earnest	L. 1
1537–	Bernard, Anna Augusta	S.
1685	Bernatz, Clarence Frank	M. 1
1683	Berry, John Williams	L. A. 1
597	Berryhill, James Guest, Jr.	L. A. 2
1615	Besore, Albert Leroy	M. 1
1526–	Bibbs, Alice Wall	S.
184	Bice, Gerald Roy	M. 3
1695	Bidwell, Everett	D. 1
388	Bigger, Lee Fisk	D. 2
1275–	Biggs, Mrs. Eleanor Startsman	G.
409	Birss, George Alexander	L. 2; L. A. u.
1459–	Black, Anna Bell	L. A. 3
522	Black, Robert Alfred	M. 2
1520	Blackmar, Harry E.	S.; L. A. p. r.
1178–	Blackmore, Harriet Narcissa	M. 1
991	*Blackmore, Ralph Davis	G.
1900	Blair, Fred Leroy	M. 1
1724	Blakely, Ernest Reuben	L. A. 1
1524	Blakely, William Henry	S.
336	Blowers, Herbert Bert	P. 2
298–	Blum, Daisy Perl	L. A. 2
11	Blythe, Edward Ellsworth	M. 2

*Died, October 26, 1901.

798	Boddy, Marshall Vincent	L. A. 4; L. u.
1238	Boehm, Walter Martinus	L. A. 4
380–	Boerner, Edna Louise	L. A. 1
1747	Boies, Harry Edward	L. A. 1
1871	Bond, David Kline	H. M. 2
1650	Book, John Ray	P. 1
149	Boots, Frederick Warner	M. 2; L. A. u.
1471	Bordner, Richard L.	L. 2
954	Bosley, Roy Harrison	L. A. 2
602	Bowen, Jesse Clark	L. A. 2; M. c.
1821	Bowers, Bert Alfred	M. 1
1562	Bowers, Charles Kingsley	D. 1
1680	Bowie, Louis Lee	M. 1
1515–	Bowman, Bessie	S.
1806	Bowman, Clarence Henry	L. A. 1
140	Bowman, Howard Edgar	M. 2
1382	Bowman, John Gabbert	G.
886–	Bozarth, Maud	L. A. 4
845	Brackett, Merritt	L. A. 4; L. 1
1006	Brackney, Herbert Winfield	L. A. 2
1008	Brackney, Herman John	M. 1
406	Braden, Austin Lynn	M. 3
729	*Bradley, Clifford E.	L. 2
312	Bradley, Frank Timothy	L. A. 1
2139–	Brady, Anna Mabel	H. M. n.
1100	Brainerd, Frederick Goodrich	L. A. 2
785–	Brainerd, Helen Louise	L. A. 2
2067	Brannan, Thomas Harbine	L. 1
1279–	Branson, Mrs. Laura House	G.
2034–	Brant, Lucy Winifred	L. A. 1
1479	Brasted, Fred	G.
2046	Brennan, James Clarence	D. 1
659	Briggs, Charles Orin	L. A. 2
691	Briggs, Fletcher	G.
1585	Briggs, Stewart Daniel	M. 2
2118	Brinck, Dana Everett	L. 1
1803	Brock, Albert Jay	D. 1
366–	Brockett, Louise	L. A. 2
1480	Brockway, Earle Bailey	G.
875	Brockway, James Madison	G.

*Died, April 14, 1902.

987	Brose, Frank Verne	L. 2; L. A. u.
2132–	Brown, Adelyn Ethel	H. M. u.
1577	Brown, Adin Noyes	P. 1
1715	Brown, Arthur Adney	L. 1
1199	Brown, Charles Frederick	D. 2
1079	Brown, Clarence Aubrey	D. 2
1748	Brown, Earl	L. A. 1
435	Brown, Edwin Keech	L. 1; L. A. u.
1401–	Brown, Florence Emily	M. 2; G.
1214	Brown, Francis Henry	M. 2; L. A. u.
1883	Brown, Joe Wesley	M. 1
621–	Brown, Maud Anna	S.; L. A. 3
2090	Brown, Robert Joseph	L. A. u.
1005	Brown, Roy Lawrence	D. 2
608	Brown, Samuel Joe	G.
277	Bruhn, Otto John	P. 2
1538–	Bryant, Mrs. Lottie Vernon	S.
1989	Bryson, Harold Lewis	L. A. 2
2032–	Bryson, Mrs. Stella Gearhart	L. A. u.
1455	Buckles, George Russell	S.
376	Buckley, Fred Watson	L. A. 2
899	Buckmaster, Raleigh Ankeny	M. 3
908	Buffum, Hugh Straight	G.
1943–	Buffum, Mary Susie	L. A. 1
1729	Burbank, Manus Combs, Jr.	L. A. 1
1540–	Burgess, Elizabeth Maud	S.
273	Burgum, Harry Pitkin	L. A. 2
1801	Burk, Frank Oscar	M. 1
1894	Burmeister, August Otto	L. A. 3
1580	Burnett, George Ritter	L. 1; L. A. u.
1762	Burnquist, Bert Blaine	L. A. 1
1990	Burns, John Joseph	D. 1
70	Burns, Thomas John	M. 3
943	Burrier, Emmett Francis	L. A. 4; G.
668	Burrus, James Harvey	L. 1
676	Burton, Harry Edward	G.
2152	Bush, Stephen Hayes	G.
33	Bushnell, William Francis	M. 3
1825	Busta, Charles	M. 1.
641	Butler, Lindley Moses	L. A. 4; L. 1
1622	Butler, William Pinkney	L. A. 1
1971	Byers, Frank Crockett	L. 1

1628	Byers, Robert Emmett	D. 3
855	Byrnes, Ralph Leonidas	L. A. 4
624	Bywater, Edward Napoleon	H. M. 3
887	Cady, George Luther	S.; G.
458	Calkins, Guy Smith	L. 2
1653	Call, Merlyn Bush	L. A. 1
1796	Cammack, William	L. 1
1916	Campbell, Frank T.	L. 1
1758–	Campbell, Marie Delphine	L. A. u.
1671	Carder, Clinton Shrader	M. 1
1282–	Carder, Helen L.	L. A. 4
1566	Carhart, Earl Clyde	M. 1
1965	Carlson, Christian R.	L. A. 1
686	Carlson, Ernest Emil	L. A. 3
732	Carpenter, Edwin Hager	L. A. 1
109	Carson, James Alexander	H. M. 2
74	Carter, Edward Albert	L. A. 3
417	Casady, Philip Murray	L. A. 1
102	Casady, Thomas	L. A. 4
1196–	Cavanagh, Lucy Mary	G.
197	Chamberlain, Ben H.	M. 3
1421	Chamberlain, Park	G.
1454–	Chamberlin, Leila May	L. A. u.
374–	Chamberlin, Louise	S.; L. A. u.
1555	Chambers, James Robert, Jr.	L. 1; L. A. u.
1513–	Chapin, Gertrude Eveline	S.
891	Charlton, Max Rosecrans	L. A. 3
1839–	Chase, Nellie Althea	L. A. 1
1808–	Chase, Olive Merrill	L. A. 1
947	Chase, William Bronk	M. 4
1458	Chesley, Frank Ephraim	L. A. 2
182	Choate, Rufus Clark	L. A. 3
1853	Christainsen, Jens	M. 1; L. A, u.
198	Christensen, Christen Jensen	M. 4
2017	Christenson, John August	M. 1
657	Clapp, Albert Carpenter	S; L. A. 3
1769–	Clapp, Alice Louise	L. A. u.
332	Clapp, Archie Burwell	H. M. 4
1533–	Clapp, Lucretia Dunham	S.
669	Clapp, Mortimer Edwy	L. 1
400–	Clark, Alice May	M. 4
1677	Clark, Carl George	H. M. 1

2027	Clark, Charles Vern	L. 1; L. A. u.
319	Clark, Floyd Chester	D. 2
1484	Clark, Whit H.	G.
939	Clark, William Clarence	L. A. 2; M. c.
1722	Claussen, George	L. 1; L. A. u.
1065	Clearman, Albert Edward	L. A. 2
1326–	Clearman, Hattie Marie	G.
201	Clearman, Rollen Ives	L. A. 4; L. 1
1864	Clearman, Wilfred Jewett	L. A. 1
1165	Clegg, Samuel Harvey	S.; L. 2; L. A. u.
1830	Clemmer, John J.	D. 2
1365	Cline, Clifford M.	M. 1
450–	Close, Katherine Stevens	L. A. 4
1663	Coad, William Ansley	P. 1
2072–	Coast, Mrs. Grace McGee	G.
755	Coast, William Oscar	L. A. 3
510	Coburn, Robert Leroy	L. A. 2; M. c.
1759	Coffeen, Elmer Laupher	G.
438	Coffin, Frank W.	L. A. 1
1657	Coffman, Walter Thomas	P. 1
689	Cogswell, Charles Herbert, Jr.	H. M. 4
1384	Cogswell, John Wilkinson	L. A. 2; H. M. c.
1225	Colburn, William Orlin	M. 2
1992	Coldren, Paul Alfred	L. 2
897	Cole, Alvernus Humphrey	D. 1
1778	Cole, Franklin James	D. 1
2024–	Cole, Viva Victoria	L. A. 1
1693	Collins, Bert Johnson	D. 1
1551	Collins, Edward Robert	S; L. A. u.
2071–	Collins, Elizabeth Grace	P. 1
950	Collins, Frank Butler	S.
1860	Collins, Joseph Sylvester	M. 1
673	Confare, Bert	L. A. 2
2012–	Conley, Agnes Mercedes	L. A. 3
1654	Conmey, Roy Merrill	M. 1
1198	Conner, Jacob Elon	G.
634	Converse, Charles Crozat	L. 2
487	Cook, Harry Delmar	D. 3
1009	Cook, Roy Arthur	L. 1; L. A. u.
555–	Cooper, Elizabeth Janette	S.
561–	Cooper, Esther Leiper	L. A. 3
846	Cooper, Jay Clark	M. 4

1889	Core, George Clinton	L. A. 1
1994–	Corlett, Clara Marie	L. A. u.
730–	Corlett, Jessie May	S.
363	Cory, Charles Seldon	S; L. A. 4
297–	Cory, Mrs. Charles Seldon	L. A. 3
1339	Cotton, Richard Lee	L. u.
224	Coulthard, George Harry	M. 2
1525	Cox, Arthur John	S.
969	Cox, Clifford Vernard	L. 2
1503–	Cox, Mrs. Elizabeth Gardiner	S.
1942	Cox, Guy	L. A. u.
137	Coye, Elmer Lucius	P. 2
1846	Coyne, Andrew Howard	L. A. 1
485	Crane, Edward Harrison	M. 2
247	Crane, Ernest B.	L. A. 2
508	Crane, Eudell Thomas	M. 2
2019	Crary, Archie West	L. 1
2113	Craven, Charles Allen	L. A. u.
263–	Crawford, Tillie Jane	L. A. 2
323	Cress, George	D. 3
46	Cressler, Frank Earnest	M. 2
44	Creswell, William L.	M. 3; L. A. u.
1091	Crew, Arthur Ellwood	H. M. 4
1112	Crockett, Frank Walford	L. 2; L. A. u.
1270–	Cronin, Sarah Elizabeth	L. A. 3
75	Crooks, Lloyd Alexander	P. 2
370	Crose, Reuben Brooks	D. 2
321	Cross, Cash R.	L. A. 2
1776	Cross, John Eli	L. 1; L. A. u.
1652	Crouch, John Baker	M. 1
245	Crowell, Irving Gardner	D. 2
852	Crum, William Edwin, Jr.	L. 2
2036	Cummings, William Cyrus	M. 3
733	Currier, Albert Moore	L. A. 4
295–	Curtis, Alice Bertha	S; L. A. 3
1543–	Curtis, Cora Gertrude	S.
1667	Curtis, Walter Pingree	M. 1
982	Cushing, Raymond George	L. A. 2
1656	Cutler, Earl Van Zile	D. 1
684–	Dakin, Amy Dorothy	L. A. 3
299–	Dalton, Ula Elizabeth	L. A. 3
7–	Daly, Eunice Elizabeth	D. 3

124	Danell, Karl August	M. 2
1811	Danielson, Henry Clarence	L. A. 1
2030	Dare, Carl Luther	L. 1
700	Daum, Philip Hugh	L. A. 1
1405–	Daum, Selma A.	G.
1787–	Davidson, Lois Craig	L. A. 1
1763	Davies, Robert Geiser	L. A. 1
296	Davis, Arthur William	G.
1473–	Davis, Florence Mabel	L. A. 4
1856	Davis, Odin Royston	L. A. 2
87	Day, Archie Loraine	M. 2
405	Day, William Elton	M. 4
715–	Dayton, Leona Mellie	L. A. 4
253	DeBusk, William Hayden	L. A. 3
121	DeGroff, Paul Burritt	D. 2
1908	DeHart, Otto Dell	L. A. 1
318	DeLano, Courtland Alva	D. 2
678–	DeSellem, Anna Louise	L. A. 1
2131–	DeVoll, Eula Carlotta	L. A. u.
2127–	Dean, Almeda B.	H. M. u.
1800	Dean, Lyle Lucious	L. A. 1
1208	Dean, Ray Herbert	M. 4; G.
724	Delavan, George Edwin, Jr.	S.; L. A. 4; L. 2
1789–	Dennis, Edna Clementine	L. A. 1
1192–	Detwiler, Caroline	D. 3
254	Devine, Terry	P. 2
1867	Diamond, Tobias Ellsworth	L. 1; L. A. u.
1404	Dick, George Stuart	S.; G.
975	Diddy, Carl Foster	L. A. 2
1436	Dilley, Wesley Young	G.
1032	Dingman, Marshall Edwin	M. 4
278	Dixon, Frank Leslie	L. A. 2
741–	Dixon, Ollie Edyth	L. A. u.
2138–	Dodge, Vera Belle	H. M. u.
2051	Doe, Charles Madison	D. 1
1669–	Donahue, Alice Elizabeth	L. A. 1
835	Donohoe, Anthony Patrick	M. 4
2101	Donovan, Louis Patrick	L. A. 1
1121	Doran, Thomas Cyrus	L. A. 3
1531–	Doren, Elizabeth Bragdon	S.
1411	Dorcas, Herbert Clifford	G.
1749	Dorweiler, Paul	L. A. u.

195	Downing, Leroy Morgan	M. 3
1099	Drake, Fred Collins	L. 1
1684	Drake, Guy Arthur	L. A. 1
242	Drewry, Ray Forest	L. A. 3
912	DuBois, Walter Lynn	L. A. 4
1997	Duckett, Harold	M. 1
643–	Duff, Laura May	L. A. 2
2023	Dugdale, Jack McClure	P. 1
290–	Duggan, Abbie Lucy	L. A. 2
49	Dulin, John Albert	M. 3
1604	Duncan, Alvia Lee	D. 1
1623	Duncan, Claud Earl	P. 1
476	Duncan, James Todd	M. 1
65	Duncan, Warren	D. 2
2103–	Dunham, Elsie Martha	L. A. 1
1893	Dunham, Ralph Abner	L. 1
1957	Dunkel, Benedict William	L. A. 1
1030	Dunkel, George Kaspar	L. A. 1
284–	Dunlap, Fanny	L. A. 2
139	Dunn, James	M. 2
565	Dunn, John Edward	M. 2
1950–	Dunning, Ethel Genevieve	L. A. 1
303	Dunning, Walter Lyle	D. 3
683	Dye, Harvey LeRoy	L. A. 2
774	Dykstra, Clarence Addison	L. A. 3
685	Dykstra, Sylvester Henry	L. A. 4
639	Eaker, Jay Felts	L. A. 3
1415	Eaton, Ernest Theo	G.
1308	Eaton, William Hammond	M. 4
537	Eberhart, Frank Vaughan	L. A. 4; D. 1
1875	Echternacht, Arthur Charles	M. 1
1445–	Eddy, Helen May	S; G.
551–	Eddy, Mary Louise	S; L. A. 2
763	Ede, Ernest D.	S.
1271	Edgerton, Robert Henry	L. A. 2
1287	Edmonds, William Frank	M. 2
567	Edmondson, Charles Howard	S; L. A. 3
803	Egan, George William	G.
2065	Elbert, Hoyt Hugh	L. A. 1
1649	Elgin, John Fred	P. 1
399	Eller, Chester John	L. A. 4; L. u
362–	Elliott, Ethel Anna	L. A. 3

558	Ellis, Dias Henry	L. 2; G.
94	Ellis, Gideon Charles	D. 2
1470–	Ellis, Mamie Ruth	S.
2091	Ellyson, Charles Wright	M. 1
1905	Emmert, Max Washabough	L. A. 1
2130	Emmons, Orrin William	L. 1
536	Emry, Frederic Grant	L. A. 4
125	Engelke, Charles Rufus	L. 2; L. A. u.
181	English, William Kirk	D. 2
1641	Erb, Benjamin H.	D. 1
1751	Ericsson, Charles Melvin	M. 1
1002	Espeset, James Howard	L. A. 4
1527–	Estabrook, Clara Ella	S.
2085	Estes, Joel Sydney	L. 1; L. A. u.
499	Estes, Reuben Marion	S.; L. A. 4
1914	Etzbach, Joseph Frank	M. 1
1947–	Evans, Edith Price	L. A. u.
1488–	Evans, Emma Laura	S.
53	Evans, Frank Butler	M. 2
690–	Everett, Emma Dolorosa	L. A. u.
2068–	Everts, Mary Sleight	L. A. u.
703	Ewers, Albert Francis	L. A. 4
1003	Fagan, Ralph Mather	L. A. 2
1974–	Fair, Etta Pearl	L. A. 1
2001	Fairall, Herbert Snowden, Jr.	L. A. 4; M. 3
1635	Fallows, Howard Daniel	M. 1
586	Farnsworth, Asa Alexander	L. A. 1
559	Farquhar, S. Walter	L. 2
2020	Farrell, Thomas	L. A. 4
1807	Fay, Wylie Webb	L. A. 1
1632	Fear, Milo Francis	D. 1
617	Feeley, Elmer Frank	L. 2
1477	Fellingham, John H.	G.
1187–	Fenton, Jennie Inez	L. A. 3
286	Ferry, Herbert Works	M. 2
2026–	Fesler, Susie Alice	L. A. u.
150	Filer, Paul Schenck	L. A. 4
1726	Files, Ray	L. A. 1
1917	Finkbine, Robert Hoyt	L. A. 1
345	Fish, James Wilson	L. A. 3
507–	Fitch, Eva Lillian	L. A. 4
571	Fitch, Harry Holland	S.; L. A. 4

2004	Fitz, David John	L. A. 1
720	Fitz, Joseph Hamilton	M. 2
1571	Fitzgerald, Emerson Godfred	D. 1
1535	Fitzgerald, James Edmund	S.; L. A. p. r.
1232	Fitzpatrick, Daniel Helen	L. 1; L. A. u.
424	Fitzpatrick, Miles Joseph	L. 2; L. A. u.
1312	Fitzpatrick, Thomas Jefferson	G.
1073	Fletcher, George Glick	L. A. 2
1745	Fogg, Walter E.	L. A. 1
462–	Ford, D. Fae	S.; L. A. 4
1174	Ford, Lawrence Thomas	P. 2
1004	Fordyce, Chester	D. 2
652–	Foster, Blanche Fairfax	L. A. 2
881	Foster, Charles Clarence	L. A. 2
679–	Foster, Florence Irene	L. A. 1
1614	Foulk, Frank Erastus	M. 2
1668	Fox, Walter Henry	M. 1
1434	Fracker, George Cutler	S.; G.
1661	Frahm, Frederick William	D. 1
1948–	Frazier, Zoe Rae	L. A. u.
838	Free, Samuel Pratt	M. 4
1150–	Freeman, May Agnes	G.
1725	Frieburger, Benjamin Franklin	L. 1; L. u.
2098	Friend, Frank Victor	G.
221	Frink, Raymond P.	M. 3
95	Fritschel, Godfrey Constantine	M. 4
1301	Fullmer, Burt Emerson	H. M. 4
2136–	Fullmer, Mrs. Jessie Noggle	M. n.
423	Funson, Harry Shugart	L. A. 4 ; L. 1
1678–	Gabriel, Grace Ethel	L. A. 1
359	Gallagher, Oscar Harley	D. 2
89	Gannaway, Charles Robertson	M. 2
1643	Gardner, Charles Edward	D. 1
627–	Gardner, Frances Maude	L. A. 3
1499–	Gardner, Lucy F.	S.
1991	Garver, Frank Harmon	G.
1857	Gaston, Myron Clinton	G.
171	Gates, Ernest H.	L. A. 2
391–	Gay, Anna May	L. A. 3
1529–	Gay, Margaret Leona	S.
1710	Genung, Norman Seth	L. 1
660–	Geyer, Ellen	L. A. 4

1148	Geyer, Philip Wesley	L. A. u.
1918	Giese, Charles Oscar	L. A. 4
594	Gifford, Judge Herbert Sheldon	L. 2
1926	Gildner, Edward Everett	L. A. 1
1320	Gillespie, John Leonard	L. 2; L. A. u.
1986–	Gilman, Ada Nadene	L. A. 1
1640	Gilmour, Edwin Pilling	P. 1
1879–	Goetz, Antoinette	L. A. u.
2084–	Goff, Charlotta	L. A. u.
1619	Goff, Harry LeRoy	M. 1
1631	Goldthwait, Guy Garfield	D. 1
1636	Gonterman, Emery Oliver	L. A. 1; M. c.
163	Goodall, John Albert	P. 2
1569	Goodwin, James Edwin	L. A. 1
1492	Gordon, Arthur Clarkson	S.; L. A. 1
721–	Gordon, Mary Agnes	S.; L. A. 2
618–	Gordon, Pearl Avis	S.
66	Gordon, William Null	M. 2
413	Gow, James Ellis	G.
656–	Graff, Lulu A.	G.
847	Graham, Dell Ewing	M. 4
431	Graham, Joseph W.	S.; L. A. 4
56	Graves, Rex Vale	H. M. 3
28	Gray, George Henry	M. 2
836	Gray, John Franklin	M. 4
1583–	Gray, Mrs. Letha Maus	D. 1
79	Gray, Oscar Sylvester	M. 2
1906	Gray, Ross Calhoun	L. 1
1219	Greear, Clabe Baker	M. 4
1848	Green, John Reuben	L. A. 1
718	Green, Oliver Nelson	D. 2
1793	Greenawalt, Richard Albert	L. A. 1
167	Greene, Galen Edwin	L. A. 2
1742	Greene, Harry Martin	L. 1
1737	Greene, Lynne Birdsall	H. M. 2
1719	Gregory, Horace Whiting	L. A. 1
1597	Griffin Frank Leo	M. 1
1664	Griffith, Dwight Moody	L. A. 1
1741–	Griffith, Grace	L. A. 1
984–	Grillet, Ida Louise	S.; L. A. 4
1720	Grinstead, Frank Leo	L. 1; L. A. u.
241–	Grothaus, Tarana Johanna	M. 3

1491–	Groves, Ada Dell	S.
1116	Guldner, Ludwig Frederick	M. 4
539	Gurley, Zenas Robinson	L. 2
1962–	Gutterson, Grace	L. A. u.
1849	Haas, Robert Arthur	L. A. 1
1981	Haddock, Ross Boyd	L. 1
926	Hadley, Herbert Erwin	L. 2; L. A. u.
20	Hagan, John	M. 2; L. A. u.
24	Hagan, Martin	M. 2; L. A. u.
1288	Hagler, Elisha Marion	L. A. 2
1610	Haines, Charles Henry	L. 1
1896	Hall, Ray Edwin	M. 1
1424	Hamilton, Arthur S.	G.
1964	Hammill, George, Jr.	L. A. 1
1222	Hand, George	H. M. 2
1546	Handley, Edward Seth	S.
1626	Hands, Sidney Gillott	M. 1
2055	Hanlon, Frank John	P. 1
736	Hanson, Clarence Henry	L. A. 3; M. c.
2048	Hanson, John Foss	P. 1
786	Hanson, William Patrick	L. 2; L. A. u.
68	Hanzlik, Paul	P. 2
1880	Happe, Francis Alfred	M. 1
494	Hardman, Roy Cordis	L. A. 3
2124–	Hardy, Mrs. Eliza Jane	G.
1881	Hardy, Rufus Guy	L. 1
890	Harkness, Gordon Follette	M. 4; G.
1794	Harmon, James Benjamin	D. 1
316	Harned, Calvin Waldo	D. 2
677	Harned, Luther Martin	L. 2
134	Harper, Albert S.	D. 2
343	Harris, Cleo Stanley	D. 3
1861	Harris, Fred Elwon	L. 1; L. A. u.
2039	Harris, Madison Curtis	D. 1
1936	Harrison, Ben Tom	L. A. 1
1984	Hartshorn, Lee Arlington	L. A. 1
1819–	Hartsock, Margaret Ellen	L. A. 1
548	Harvey, Charles Marvin	D. 2
2045	Hasek, Frank Vaclav	D. 1
1706	Haskins, Ernest Herbert	L. A. 1
1949–	Hass, Laura Neely	L. A. u.
1307	Hawk, Ira Tapper	G.

1838–	Hayden, Clara May	L. A. 1; M. c.
589–	Hayes, Elenora Byington	L. A. 3
940	Hayler, George Rex	L. A. 4
707	Hayward, Roy Stanton	G.
1380–	Hazard, Mrs. Minerva Calkins	L. A. u.
1642	Head, Scott Wilson	P. 1
1322	Heald, Francis Alfred	L. 1; G.
1582–	Heard, Mary Kathrina	M. 1; L. A. 3
115	Hearst, George Edward	M. 2
1416–	Hearst, Mamie Frances	G.
1959	Hector, Fred Carl	L. A. 1
403	Heinen, William Clark	M. 4
2074	Helin, Adolph	L. 1
746	Hellberg, Will Fred	L. A. 2
2042	Helmer, Arthur C.	L. A. u.
350	Heminger, Amos Lincoln	S.; L. 2; L. A. u.
861	Hemminger, Dave Mitten	D. 2
1998	Hemsworth, Leroy Cliftain	D. 1
1956	Hennessy, Edward Francis	L. A. 1
949	Henninger, Louis	M. 4
436	Henry, Carl Jeffrey	L. A. 4; L. u.
415	Henry, Ward Casady	L. A. 4
26	Herbert, Vane Eli	D. 3
449–	Hermann, Cornelia Josephine	L. A. 2
327–	Hershire, Mildred	S.
1602	Hershire, Richard Aaron	L. A. 1
854	Hess, Adam Konigmacher	L. A. 2
564–	Hess, Sadie Murray	S.
412	Hetzel, Clarence Charles	M. 3
1617	Hexom, Johan Daniel	M. 1
114	Hibbs, Fred Valentine	M. 4
534	Hiett, Will Merriam	D. 2
704	Hild, Harry	P. 2
2	Hildebrand, Joseph Arthur	D. 3
352	Hill, Albert Ernest	P. 2
1816	Hill, Fred Stubbins	L. A. 1
701	Hill, George Edgar	L. A. 3
1171	Hill, George Ray	H. M. 2
1831–	Hill, Mildred Louise	L. A. 1
2094–	Hinkle, Bessie Catherine	L. A. 1
2093–	Hinkle, Jessie Ellen	L. A. 1
1891	Hinsdale, Henry Vaughan	D. 1

1834	Hitchcock, Norris Asa	D. 1
2122–	Hodge, Katharine Julena	L. A. 1
1496–	Hodge, Lida Jane	S ; L. A. 1
1728	Hodgin, Charles Aaron	L. A. 1
716	Hoffman, Coleman Lovejoy	M. 3
1765–	Hoffman. Edith Mae	L. A. 1
661–	Hoffman, Mabel V.	L. A. 2
1157–	Hofmann, Minnie	L. A. 2
164	Hollenbeck, Henry Stanley	L. A. 4
236	Holman, Henry Delavan	H. M. 3
1788	Honnold, John Guy	L. A. 1
739	Hooker, Ira Sidney	M. 3
725	Hoover, Alden Robbins	L. A. 4; M. c.
2044–	Hopkins, Anna	D. 3; L. A. u.
1972	Hopkins, Floyd Frank	L. A. 2
1218	Horack, Hugo Claude	G.
1536	Hornsyld, Peder Pedersen	S.; G.
99	Horrabin, Alfred	D. 2
219	Hosoda, Sachio K.	L. A. 2
260–	Hossfeld, Eleanor	L. A. 3
1050	Houser, Cass Thomas	M. 2
205	Houser, Harry Pirnetti	D. 2
2049–	Houser, Mrs. Hattie Riggs	G.
550	Housholder, Frank Leroy	D. 3
1899	Housholder, Harold A.	M. 1
1478–	Howard, Libbie C.	G.
898	Howell, George Key	L. 2
1675	Howell, James Roland	M. 1
1840	Howell, John Bert	M. 1
455–	Hruska, Victoria	G.
1000	Huebner, John	L. A. 1
153	Huff, Ellsworth Abram	H. M. 3
1827	Huff, Fay Leslie	D. 1
1107	Hull, Elmer Clapp	L. 2
353–	Hull, Pearl	S.; L. A. 4
856–	Hulsebus, Bertha Margaret	L. A. 2
1977	Humeston, Frank Enos	H. M. 2
1699	Hummer, Leo Francis	M. 1
1954–	Hummer, Sarah Agatha	L. A. 1
1613	Humphrey, Benton Wade	G.; L. 1
1682	Humphrey, Charles Manley	P. 1
1637	Humphrey, William Francis	D. 1

1265	Hunt, Percival	G.
1269	Hunt, Ralph Blaine	L. A. 1
392	Hunter, Charles Randall	L. 2; L. A. u.
1352	Hunter, John McCrary Griggs	L. 2; L. A. u.
941	Huntington, Harry Garfield	L. A. 4
1511–	Hurlbut, Grace Alice	S.
1542–	Hussey, Lena Alice	S.
116	Huston, Samuel Wesley	M. 3.
1716	Hutchinson, Everett Ross	L. A. 1
1347–	Hutchinson, Sarah Delia	G.
249	Hutchison, George Gaylord	L. A. 3
83	Huttenlocher, Forest	L. 2
1999	Ingersoll, Perry Grant	H. M. 1
2033	Irvine, Albert Elmer	L. 1; L. A. u.
1681	Irwin, James Newton	D. 1
427	Irwin, Perle Clifton	M. 2
257	Ivins, Harry Morgan	L. A. 2
222–	Jackson, Anna	H. M. 3
1946	Jackson, Edwin Roy	L. A. 2
331	Jackson, Thomas Sunter	L. 2; G.
59	Jacobsen, Robert Andrew	H. M. 2
1644	Jaeger, Anton C.	P. 1
1556	Jaenicke, Kurt	M. 1
1493	Jameyson, Charles Oscar	S.
364–	Jarvis, Carolyn Belle	L. A. 3
834	Jeffers, William Joseph	D. 3
1884	Jenkins, Firmen Clyde	L. A. 1
2029	Jennings, Avery Graham	L. A. 1
112	Jeppson, Alvin Levin	P. 2
867	Johnson, Archie D.	D. 3
1888	Johnson, Daniel Graham	L. 1
237–	Johnson, Eliza Love	L. A. 3
1191	Johnson, Eugene Gustave	L. 3
1967	Johnson, Harold Herbert	M. 1
1915	Johnson, Henry Charles	L. A. 4
1069	Johnson, James Orin Elmer	L. A. 1
2150–	Johnson, Jennie	M. n.
650–	Johnson, Jessie Florence	S.
492	Johnson, Joel Ernest	L. A. 4
1181	Johnson, Perry Spencer	L. 2
762	Johnston, Edward Ray	L. A. 2
1698–	Johnston, Mamie	L. A. 1

884	Johnston, Oscar Percy	G.
96	Jones, David	G.
416	Jones, Edward Morris	L. A. 2
325	Jones, Harry Jacob	M. 2
228	Jones, Henry Durst	M. 3
2073	Jones, Neal	L. A. 2
1912	Jones, Nyle William	L. A. u.
664	Jones, Peter Henry	L. 2
122	Jones, Walter William	M. 3
781–	Joy, Florence Livingston	L. A. 4
603	Joynt, Martin John	L. A. 3; M. c
2078	Judy, George Thomas	L. 1
863	Junger, Paul Hugo	P. 2
1854	Kahler, Hugo Victor	M. 1
1705	Kahler, Waldo Emerson	L. 1
489	Kain, William Edward	D. 3
2129	Kampmeier, August	L. A. 3
2014	Kaufman, Ernest Leslie	H. M. 1
1969	Kawakami, Kiyoshi	G.
8	Keaster, Joseph Bruce	H. M. 3
35	Keehl, Walter Edward	D. 2
1388	Kelley, Edmund Levi, Jr.	L. A. 3
1036	Kelley, Richard Carlyle	L. A. 3
1686	Kelly, Daniel Matthew	L. 1; L. A. u.
339	Kelso, Charles David	L. 2
187	Kemmerer, Charles Tilghman, Jr.	L. A. 3
158–	Kemmerer, Leila	L. A. 3
169–	Kemmerer, Sara Dorcas	L. A. 3
420	Kemmerer, Theodore Wilbert	S.; G.
533	Kemp, Malcolm Edwin	H. M. 3
2086	Kenderdine, Glenn Albert	L. 1; L. A. u.
1826	Kennedy, James	D. 1
651	Kent, Carl Volney	L. A. 2
1396–	Kent, Grace Helen	L. A. 4
840	Kenyon, Earle Dudley	L. 2
170	Kepford, Joseph Clarence	D. 2
1928	Kepler, Louis Howard	L. 1
699	Kern, Frank Dunn	L. A. 2
1593	Kidd, Floyd Snelson	M. 1
2031–	Kierulff, Anna Edwards	L. A. 4
1038	Kimball, Frank Burton	L. 1; L. A. u.
1810–	Kimple, Mable Gertrude	L. A. 1

1779–	Kimple, Mae Belle	L. A. 1
2080	King, Charles J.	M. 2
1215	King, Orau West	M. 3
252	King, Reuben Thompson	L. A. 1
1866	King, Thomas Andrew, Jr.	M. 1
998	Kingsbury, Cleaveland	L. A. 2
750–	Kingsbury, Maud Cleaveland	L. A. 4
119	Kinner, Major Ransom	D. 2
968	Kirby, James Francis	L. A. 4; L. 1
672	Kirchner. Moreau Philip	L. 2
728	Kitterman, John Taylor	L. 2
58	Klein, Adam Raymond	M. 2
915	Kleinsorge, Rudolph Ernst	L. A. 1
457	Klise, Harrold Edward	L. 1; L. A. u.
1768	Knapp, Carl William	L. A. 1
1514	Knapp, Charles Clayton	S.
1833	Knox, Samuel Thomas	P. 1
1655	Knutson, Theodore H.	P. 1
1859	Koser, George Doner	L. 1
1609–	Koser, Mae Mattie	L. A. 1
584	Krause Charles Schutz	L. A. 4; M. c.
338	Krebs, Robert D.	L. A. 3
1929	Krider, Edward Edson	M. 1
612–	Kriechbaum, Bertha Emily	L. A. 2
631	Kroger, Emil Tease	L. 2; L. A. u.
2059	Kruse, Paul Jehu	L. A. 1
1160	Kuck, Orlando Adolph	L. 1; L. A. u.
705	Kuhlemeier, Harry Floyd	L. 1; L. A. u.
1674	Kulp, Charles Joseph	D. 1
144	Kulp, Ray Ranney	M. 2
1147	Kunz, John Franklin	L. A. 2
1755	Lahman, Rush Clark	L. A. 1
433	Lambert, Charles Irwin	M. 3; G.
1708	Lambert, Clarence Joseph	L. A. 1
1495–	Lambert, Emma Frances	S.
1410	Lambert, John Joseph	G.
1659	Lamborn, Walter Alexis	P. 1
1367	Landers, John Clement	L. A. 3
658–	Landers, Lou Cornelia	L. A. 2
1575	Landsberg, Edward William	L. 1; L. A. u.
1576–	Landsberg, Helen Laura	L. A. u.
1858	Lane, Dick Richardson	L. 1

47	Lange, Henry Frederick	D. 2
619	Lange, Louie Edgar	L. 2
1586	Larson, James Emanuel	P. 1
749–	Lauer, Ada Lucile	L. A. 3
335	Lauer, Arnold William	L. A. 3
1842	Law, William Robert	L. 1
937–	Leathers, Victoria	L. A. u.
544	Lee, Arthur C.	D. 3
1966	Lees, James Henry	G.
1465	Lespinasse, Adolph Frederick de	D. 3
2141–	Lesueur, Nancy	M. n.
1390	Letts, Ernest Grove	L. A. 1
1824–	Lewis, Laura Iowa	L. A. 2
90	Lewis, LeRoy Ward	D. 3
2009	Lewis, Warren Herbert	L. A. 2
611–	Lilly, Fanny Parmer	L. A. 2
310	Lingo, Arthur Marling	D. 3.
62	Lintleman, Fred Richard	H. M. 2
1618	Linville, Guy Pittman	L. 1; L. A. u.
1519–	Lloyd, Adelaide Charlotte	S.
662–	Lodwick, Deca	S.
1350–	Lodwick, Libbie	S.
2134–	Logan, Alida Frances	L. A. u.
1558	Lohman, Fred Christ	P. 1
1085	Loizeaux, Charles Edward	H. M. 2
1015–	Loizeaux, Jennie Olive	L. A. 3
354	Loizeaux, Leon Samuel	H. M. 2
1694–	Long, Cecile Florence	L. A. 1
2107-	Long, Pearl	L. A. 1
1851	Long, Thomas Lee	M. 1
1913–	Longley, Alice Sarah	L. A. u.
1703	Longueville, Oliver	L. 1
334	Longwell, Albert Floyd	P. 2
1561	Loomis, Edgerton Fay	D. 1
468–	Lorenz, Charlotte Marie	S.; L. A. 4
1809	Lott, Guy Alexander	L. A. u.
39	Loucks, Richard Collier	P. 2
1739–	Louis, Anna	L. A. 1
1431	Louis, John J.	G.
2054	Love, Dorance Timothy	D. 1
2015	Love, Francis Leonard	L. A. 1; M. c.
605	Lowis, William John	M. 2

1033–	Lowman, Stella Elizabeth Gilmour	L. A. 4
527	Luhman, Frederick Henry	L. A. 4; L. u.
1278	Lundvick, Arthur Wesley	M. 4
1512–	Lutz, Daisy Irene	S.
1818–	Lynch, Alice Marie	L. A. 1
1931	Lynn, Arthur Ray	M. 1
1976	Lynn, Emery Collins	D. 3
2096–	Lynn, Margaret May	L. A. 1
81	Lyon, John Dexter	M. 2
1550–	Lytle, Mary	S.
390	McAllister, Fred J.	M. 4
1727	McAuliff, Leslie	L. A. 1
283	McCall, Harry Ernest	M. 3
1092	McClain, Donald	L. 2
131	McClain, Henry Griffiths	S.; L. A. 3
52	McClure, Ernest Covey	M. 3
1646	McConnaughey, Ralph Otis	D. 1
1292	McConnell, Arthur Harris	L. 2
1774	McCord, Ray Afton E.	L. 1
306	McCoy, Bernard Eberth	M. 1
347	McCoy, Edward Hugh	S.; L. 1; L. A. u.
2035	McCoy, Hugh Ben	L. 1; G.
767	McCrory, Samuel Henry	L. A. 2
1697	McCulla, Roy	D. 1
694	McCulla, Walter Philo	L. 2
2077	McCulloch, Milan Ellsworth	L. A. 1
1988–	McCutchen, Lydia May	L. A. 4
623	McDermott, Peter John	M. u.; L. A. u.
1573	McDill, Wilson Fullenwider	M. 1
308	McDowall, Gilbert Thompson	H. M. 4
1145	McElhinney, Roscoe Conklin	L. 2
1784–	McElroy, Edna Estelle	L. A. 1
1340	McElroy, Isaac Erwin	L. 2; L. A. u.
1822	McIntosh, Walter Scott	D. 1
1885	McKibbin, George Paul	D. 1
394	McKenzie, John Augustus	L. 2
2109	McKinley, Archibald Daniel	D.
1624–	McKinley, Mary Katherine Gertrude	L. A. 2
2133	McKirahan, Henry Herschel	L. A. u.
967–	McLaughlin, Eleanor	L. A. 2
1521–	McLaury, Emily Irene	S.
2081	McLennan, John Sailor	P. 1

1552–	McLoney, Ella M.	S.
1878–	McNally, Mary Janette	L. A. 1
1676	McQuillen, Edward	D. 1
1067	McVay, Albert Dennis	L. A. 4
1895	McVay, Homer Reese	D. 1
1828–	McVay, Mary Alice	L. A. 1
2137–	McWilliams, Martha Fern	M. n.
568–	Macbride, Jean	S.; L. A. 3
1862–	MacDill, Mabel	L. A. 1
1713	Mack, Guy Edgar	L. 1
419–	MacKellar, Jennie Edith	L. A. 4
1361	MacLaren, William Gardner	L. 2
1587	Macomb, Thomas T.	H. M. 1
964	Macy, Clarence Spencer	L. A. 4
356–	Magowan, Florence Nettie	L. A. 2
1611	Magruder, George Raymond	D. 1
361	Maguire, Daniel Eugene	L. 2
1506–	Mahin, Mrs. Emma Lillibridge	S.
938	Manhard, Edward	L. A. 4
1257	Maresh, George	M. 4
1645	Maresh, Reginald	D. 1
2097	Marick, George Louis	L. A. 1
1621	Maris, Charles Elmer	D. 1
616	Mark, John H.	L. A. 4; L. n.
1588	Marquardt, Louis Henry William	P. 1
825	Marsh, Richard Dana	L. A. 4
2151–	Martin, Bernice Fidelia	M. n.
1882	Martin, Charles	L. 1
581	Martin, Charles Clayton	L. 1
1850	Martin, Frederick Alonzo	L. 1
107	Martin, John Weston	L. A. 4; L. 1
2006–	Martin, Katheryn	L. A. 3
1730–	Martin, Lenore Lilian	L. A. 1
1620	Martin, Samuel Vincent	P. 1
513	Martin, Thomas Edwin	M. 2
1066	Martindale, William Harvey	M. 2; L. A. n.
1407	Mason, Oscar Henry Leonidas	G.
1594	Mason, Roy Earl	M. 1
607	Mather, Carl Henry	L. 2; G.
1792–	Mather, Rachel Evans	L. A. 4
207	Matson, John Archie	L. A. n
1017	Matson, Samuel Barclay	L. A. 2

1876–	Matthews, Lillian Ruth	L. A. 2
2140–	Matthews, Ora Ermina	M. n.
322–	Maudlin, Mina May	L. A. 4
1565	Maurer, Harvey Charles	H. M. 1
1753	*Maxwell, William Howard	L. A. 1
1539	May, Samuel Thomas	S.
2088–	Mayer, Mrs. Julia Bloom	L. A. u
2050	Mayne, Herman Charles	L. A. 1
407	Mead, Ray C.	L. A. 4; L. u.
238	Meade, William Joseph	D. 2
913	Meakim, Roger Joseph	L. A. 2
143	Medin, John Theodore	L. 2
1978	Mehaffy, James Henri	L. A. 4
697	Mehaffy, John Milton	L. A. 4
1886	Meighen, James Leroy	L. 1
1163	Meigs, Benjamin Lyle	M. 4
1973	Melzner, Arthur Burdell	L. A. 2
1721	Mercer, Herbert Miller	L. 1
1773–	Mercer, Mary Bertha	L. A. 1
289–	Merritt, Edith Whitney	L. A. 2
1987–	Merritt, Mabel Clough	L. A. 1
2128–	Mether, Emmaline Marie	H. M. n.
1781–	Metzger, Belle Agnes	L. A. 1
1754–	Metzger, Della Elizabeth	L. A. 1
532	Meyer, Charles Edwin	D. 3
2000	Meyer, Jacob William	L. A. u.
342	Meyerholz, Charles	S.
401	Meyers, Jacob Franklin	M. 3
885	Middleton, Edward Duncan	M. 2
2100–	Mighell, Dr. Lola Clark	L. A. u.
480–	Miles, Emma Lulu	L. A. u.
1933–	Miles, Mabel	L. A. u.
2037	Miles, Matthew James	L. 1
2111–	Miller, Catherine Marguerite	D. 1
1829	Miller, Claude Melvin	L. A. 1
2022	Miller, Dalton Giles	L. A. 1
1517–	Miller, Emma Mai	S.
1393	Miller, George Roscoe	D. 2
255	Miller, John William, Jr.	L. 2
1141–	Miner, Cora Rebecca	D. 3; L. A. u.

*Died April 22, 1902.

727–	Mingus, Edna M.	L. A. 4
421	Minkel, Lewis Herman	L. A. 4; L. u.
422	Mitchell, Lebbeus Horatio	L. A. u.
983	Moffatt, Burnam A.	L. A. 2
997	Moffett, James Sedan	L. 2
1508	Moffett, Lambert Benton	S.; p. r.
1438	Moffitt, Chester Earl	L. A. 1
687–	Moler, Ida Muriel	L. A. 2
748–	Moler, Margaret Imo	L. A. 4
646	Moon, Roy	M. 3
2147–	Moore, Letta	M. n.
1735–	Moore, Theone Rae	L. A. 1
541–	Moravec, Agnes Emma	S.; L. A. 3
1338–	Mordoff, Carrie Ella	G.
1843	Morgan, Frank Sonun	L. A. 1
1213–	Morgan, Mabel Ruth	M. u.
1907	Morris, Creslie Daniel	L. 1; L. A. u.
1523–	Morris, Daisie May	S.
1855	Morris, Harry Renard	L. A. 1
256–	Morris, Mary Makepeace	L. A. 2
1648	Morris, Robert C.	D. 3
2092	Morrison, Samuel Turner	L. 2
1870–	Morton, Helen Louise	L. A. 3
1887	Morton, William Glasspell	M. 1
1437	Mosnat, H. Roy	G.
1836	Moss, William George	D. 1
574–	Moulton, Lulu	L. A. 2
1835	Moulton, Myron Dudley	L. A. u.
1369	Mowry, Ross Rutledge	L. 2; L. A. u.
136	Mueller, Eugene Fred	L. A. 4
355	Mueller, Henry Christian	D. 3
1420	Mueller, Herman August	G.
453–	Mueller, Mary Theresa	S.; L. A. 4
2064	Mueller, Otto Henry	L. A. 3
1261	Mullin, George Henry	L. A. u.
734	Mulock, Edwin Hulburt	L. A. 2
17	Munger, Francis Ellbriggs, Jr.	D. 3; L. A. u.
1560	Munger, Milo William	D. 1
193	Murchison, Kenneth	M. 3
1944–	Murdy, Sybil Serelda	L. A. 1
760	Murphy, Edward Andrews	L. A. u.
1651	Murphy Frank Eugene	M. 1

218–	Murphy, Genevieve Beatrice	L. A. 3
196	Murphy, John Campbell	M. 2
1251	Murphy, Thomas William	M. 3
110	Murphy, William Linett	M. 3
576	Murray, George Herman	L. 3
2061–	Murray, Mary	L. A. 2
2105–	Myers, Maude Modelle	L. A. u.
1013	Myers, Perry Cullen	G.
1723	Naberhuis, Henry Albert	L. A. 1
504	Naftzger, Jesse Blaine	M. 2; L. A. u.
133–	Namur, Cecelia Barbara	L. A. u.
1790	Neander, Victor Theophilus	L. A. 1
451	Negus, Henry	L. 2
1734	Negus, Joseph Elisha	L. A. 1
1120	Nelson, George William	L. 3
2112–	Nelson, Grayce Belle	D. 1
904	Nervig, Isaac Eugene	M. 4
635	Newman, Clarence Adelbert	L. A. 2
1985–	Nichols, Ethel Gay	L. A. 1
1968	Nicholson, Harry Carl	L. 1; L. A. u.
1795	Nies, George Henry	D. 1
1775–	Nimocks, Sara Ausbon	M. 1
178	Nims, Edward Albert	M 3
2041	Nixon, Andrew Wallace	P. 2
1736	Nixon, Samuel Ross	P. 1
2117	Noel, Bruce Adrian	L. A. 2
1584	Noland, Clyde Amandee	M. 1
31	Nolte, Willis Clever	M. 2
408	Norman, Charles John	L. 1; L. A. u.
100	Norton, Guy Coe	P. 2
2060	Norton, James Lee	L. 1
1354	Nugent, Francis	L. A. 3
2008	Nutting, Harry George Dallas	L. A. 1
1701	O'Connell, John Francis	L. A, 1
1252	O'Connor, Morris Joseph	M. 3
1941	O'Harrow, Rolfe	L. A. 1
570	Oakes, William Thomas	L. 2
1924	Ochiltree, Henry Clyde	L. 1
1937	Okerlin, Oscar William	H. M. 1
2018	Okerstrom, Albert	M. 1
1712	Olinger, Reuben James	L. A. 1
1607	Oliver, Carl Fred	P. 1

2038	Opfer, Edward George	L. A. 1
1467	Orvis, Elmer Victor	L. 3
1241	Ostling, Carl August	M. 2
396–	Otto, Lucia Caroline	L. A. 4
491	Oven, Adelbert Otto von, Jr.	D. 3
202	Overholt, Roscoe Earl	M. 2
1461	Owen, Lenton Warren	L. 3
1075	Owen, William Roy	H. M. 3
82	Paarmann, Juergen Herman	S.; G.
165	Packard, Walter Steel	L. 2
1932–	Padmore, Julia Rachel	L. A. 3
459	Page, Charles Price	L. A. 3
1242	Page, Clarence Vernon	H. M. 4
675–	Paine, Katharine	S.; G.
1771–	Paine, Sarah Olivia	L. A. 1
1847–	Palmer, Maud Luree	L. A. 1
2079–	Parker, Bessie Grace	G.
1505–	Parker, Olivette Butcher	S.
614–	Parsons, Ella Beckley	L. A. 4
1958	Parsons, Harry Clifford	H. M. 1
2066–	Parsons, Peryl Marie	L. A. u
1740	Pawelski, Joseph Francis	L. 1
1449–	Paxson, Susan	G.
54	Pease, Herbert	M. 2
1572	Pelton, Henry Clark	D. 1
1690–	Peters, Alice Gilchrist	L. A. 2
265	Peters, Fletcher Edward	M. 2
808–	Peters, Harriet Dorothy	L. A. 1
1502–	Peterson, Nina Margarethe	S.; L. A. 4
351	Petrovitsky, Charles George	L. 3
1709	Pettinger, Walter Thomas	L. 1
1670	Pfeiffer, Harry Earl	M. 1
928	Pheasant, Leon Ray	M 4
1845	Phelps, Henry Hurst	L. A. 1
1738	Phelps, Howard Linn	L. A. 1
1925–	Pierce, Juliette	L. A. 3
1980	Ping, John Roy	L. 1
1509–	Pittman, Cora Helen Knowles	S.
1940	Plumley, Harold	L. A. 1
1599–	Polevoy, Nine Dmitrevna	M. 1
2053–	Polk, Mary Emma	G.
556	Pomeroy, William Henry	L. 2

37	Port, Charles Franklin, Jr.	D. 2
4	Porter, James Tudor	D. 3
647–	Porter, Mary Montgomery	L. A. 3
1443	Porter, Roy Samuel	M. 3
1605	Potter, William Wolcott	M. 1
1633	Pratt, Frank Edward	P. 1
398	Pratt, Harlow Munson	L. A. 3
1429–	Pratt, Mrs. Margaret Allie Tobin	L. A. 3
500	Prescott, Lee Washbon	M. 1
792–	Preston, Clara Carlton	S.; L. A. 3
2125–	Preston, Edith	L. A. 1
782–	Preston, Gertrude Elaine	S.; G.
1979–	Price, Mildred	L. A. 1
1702	Pruit, William Curtis Earle	L. 1.
1439–	Pugh, Mrs. Marian Adell Howe	G.
1665	Putnam, Charles Sylvester	P. 1
97	Putnam, Clyde C.	L. 2
1172	Quaife, Howard Herman	D. 2
1534	Quigley, Edward Gross	S.
1041–	Quigley, Marjorie	L. A. 3
1545	Quigley, Samuel	S.
467–	Quigley, Sarah Ruth	L. A. 4
1919–	Rall, Carolyn Louisa	L. A. 2
248	Randall, Frank Hall	L. A. 4
999	Randall, Otis I.	L. A. 4
1711	Randall, Ray	L. A. 1
2063–	Rankin, Evangeline	G.
1814	Ratcliff, William Connor	L. 1.
1603	Rawhouser, Charles David	D. 1
2011	Read, Ralph Lewis	L. A. 1
2099	Redfield, Roy Addis	L. A. u.
562	Redmond, John Patrick	M. 3
315	Redmond, Thomas Michael	M. 2
1746	Reed, Ivy Leslie	L. A. 3
22	Reedy, Edward Hager	D. 3
1428	Reever, William Henry	G.
1129–	Reherd, Mary Louise	S.; L. A. 2
1591	Reid, Herbert B.	P. 1
103	Reinemund, Charles Adam	M. 2
484	Remley, Alfred G.	L. A. 4; L. 1
1782–	Reppert, Emma Le Maitre	L. A. 4
1039	Reppert, Lyell	M. 4

521	Resser, Jesse	L. A. 4; L. u.
2016	Rhodenbaugh, Edward Franklin	G.
471–	Rhodes, Ruby Williams	L. A. u.
212	Rhynsburger, Henry John	L. A. 4
2010	Rice, Arthur Henry	P. 1
934	Rich, David W.	L. A. 4
1570	Richey, Albert Roy	M. 1
1868	Ridgeway, William Bailey	L. 1; L. A. u.
1379	Ridle, William Bertran	L. 2
1898	Riemcke, Charles August	P. 1
1837	Rink, Arthur Francis	P. 1
1744	Rink, Clarence William	L. A. 1
2126	Rinker, Purley	L. A. 1
793	Risk, Loren	L. 2; L. A. u.
1638	River, Edward Burleigh	M. 1
636–	Roach, Lena	L. A. 3
120	Robb, Robert Worth	M. 2
1353	Roberts, Carl Eckley	L. A. 4
688–	Roberts, Jennie Ellen	L. A. 2
1541	Roberts, Newton William	S.
1183–	Robinson, Alta Aileen	G.
1026	Robinson, Reuben Artman	M. 3
1568	Rochford, Thomas James	M. 1
805–	Rogers, Frances Louise	S.
1877–	Rohrig, Emma Sophia	L. A. 1
80	Rosenbladt, Fritz	M. 2; L. A. u.
1010	Rosenstone, Bertram W.	L. 2
1530–	Ross, Anna Zoe	S.
1786	Ross, Carl Wesley	L. A. 1
1072	Rosser, Bert Paul	S.
311	Roth, Jay Arthur	D. 3
1911	Rowat, Harry Lewis	H. M. 2
2002	Rowe, Frank Noyes	M. 2; L. A. u.
1094	Royal, Malcolm Allen	L. A. 2; H. M. c.
1567	Rugh, Frederick Walter	D. 1
569	Rule, Edward A.	L. A. 3
1547–	Rundall, Ethel Beatrice	S.
973–	Rundell, Mabel Anne	L. A. 2
735	Rupp, Hugh	D. 3
50	Rust, Emery Andrew	M. 2
1435	Saam, John Gustave	G.
1427	Saam, Theodore J.	G.

1756–	Safley, Agnes Isabel	M. 2
1673	St. Clair, Frank Earl E.	M. 2
1345	Salisbury, Fred Garfield	D. 2
402	Sandy, Benjamin Brooks	H. M. 3
1764	Sanford, Jay Garfield	D. 1
1865	Sangster, Frank	L. A. 1
1823	Sarset, Edwin Cornelius	L. A. 1
953	Sauerbry, Frank Carl	M. 2
146	Savage, John Elton	L. A. 2
375	Sawyer, Burt Ray	D. 2
418	Scales, Alfred John	L. A. 2
2119	Scallon, Hubert William	L. A. 3
839	Scarborough, Bert Vergil	M. 4
1364	Scarr, Furniss Morton	L. A. 1
1040–	Schaefers, Rose Theresa	L. A. 2
2040–	Schaeffer, Oma Georgia	L. A. 1
1245	Schenck, Charles Plume	L. A. 2
1483	Schiefelbein, Emil August	S.; G.
2142–	Schley, Freda Claire	M. n.
1532–	Schmidt, Emma Johanna	S.
744	Scholz, Charles Emil	L. 3
113	Schooley, Alfred Heaten	M. 4
829	Schoonover, George L.	G.
1616	Schroder, Ralph	L. A. 1
1064	Schroeder, Peter Herman	M. 2
1135	Schug, George	M. 2
1903–	Schultz, Clara Mary	L. A. 1
2104–	Schultz, Etta Ruth	L. A. u.
1993–	Schultz, Laveta Juanita	L. A. 1
1342–	Seashore, Mrs. Roberta Holmes	G.
1717–	Sebern, Nellie Brewer	L. A. 1
101	Sebern, Richard Clyde	M. 2
2095–	Secrest, Mary	L. A. 1
1832–	Seeds, Bertha Willa	L. A. 1
809–	Seerley, Florence	L. A. 4
1927	Seidel, Earl Reinholdt	L. A. 1
1608	Sells, Benjamin Bert	M. 1
1718	Seydel, Fred	L. A. 1
1247–	Seymour, Sarah Libbie	L. A. 2
812	Seymour, William I.	L. A. 3
293	Shaffer, Carl John	M. 3
1440–	Shaffer, Nina Rebecca	S.

1132	Shahan, Richard Franklin	M. 2
905	Shannahan, Edwin Joseph	L. 1; L. A. u.
859	Shannon, Howard Richard	D. 2
1630	Shannon, Rex L.	D 1
1387	Sharpe, James Joseph	G.
1386–	Sharpe, Mrs. Lillian Ehret	G.
309–	Shaver, May Clare	L. A. u.
1815	Shaw, John Austin	L. A. 1
526	Shearer, William Alexander	M. 2
1490–	Shedd, Edith	S.
1672	Sheehan, Edward Michael	M. 1
645	Sherer, Roy Eugene	D. 3
583	Sherman, Benjamin Harry	M. 2
1173	Sherman, Fred	L. 2
889	Sherman, William Arthur	D. 3
1812–	Sherwood, Elizabeth Julia	L. A. 1
1400–	Sherwood, Mrs. Elizabeth Lewis	G.
244	Sherwood, Francis Daniel	S.
142	Shiley, George Francis	M. 3
1409	Shimek, Bohumil	G.
2069	Shontz, Robert Ivan	D. 1
896	Shorett, Judson Willard	L. 1
1489–	Shuck, May	S.; G.
773	Shull, Harry White	P. 2
1660	Shumway, Herbert Garfield	D. 1
106	Siberts, Frank Leslie	M. 2
695	Sieg, Lee Paul	G.
2106	Siemen, Edward Anthony	L. A. 1
1872	Silvius, Reuben Andrew	L. A. 4
851	Simmons, Richard Sutton	L. A. 1
993	Simonton, Thomas Milton	G.
2025	Singleton, William Eugene	L. A. 1
1817	Skelley, Silas Emmett	L. A. 1
528	Skinner, Bert Sidney	L. 2
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445–	Slavata, Jennie Elizabeth	G.
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923	Small, Berton Alonzo	D. 3
64–	Smeltzer, Cora Huldah	M. 2. L. A. u.
578–	Smith, Alta Grace	L. A. 2
869	Smith, Charles Leonard	M. 2; G.

1343–	Smith, Mrs. Grace Partridge	G.
274–	Smith, Mabel Clare	L. A. 4
1783–	Smith, Matilda Annie	L. A. 1
294–	Smith, Orpha	L. A. 2
2057	Smith, Percy Preble	L. A. u.
1598	Smith, Roy Wells	M. 1
55	Smith, Thomas Corwin	L. 2
1447	Smith, Tillman	G.; L. 1
1346	Smith, Will Samuel	D. 2
57	Smith, William Francis	M. 2
138	Snavely, John L.	H. M. 2
1813	Snedicor, Fred Elwyn	L. A. 1
1692–	Soesbe, Carrie May	L. A. 1
2145–	Somes, Candace Amelia	M. n.
1791	Soper, Fred Clifford	M. 1
2143–	Soper, Mrs. Isabel Johnston	M. n.
1059	Souders, John Cloyd	M. 2
261	Spangler, Harrison Earl	L. A. 3
2047	Spaulding, Edmund Holden, Jr.	L. A. 2
1923	Speers, Will Fred	M. 4
495	Speidel, Homer Vincent	L. A. 4
1951–	Speidel, Ida Theresia	L. A. 3
190–	Speidel, Mae Elizabeth Agnes	L. A. 2
69	Spence, William Everett	D. 3
2075	Spinden, Grant Noah	L. A. u.
1955–	Spinney, Blanche Gardner	L. A. 1
1263–	Spurgeon, Floris J.	G.
944	Spurgeon, Theodore	L. 1; L. A. u.
1634	Stanley, Clarence J.	M. 4
1124	Starbuck, Thomas Davidson	M. 4
1996	Starbuck, William Ray	D. 1
2007	Steck, Daniel Frederic	L. A. 1
981	Steele, Earl Newel	L. 1; L. A. u.
916	Steelsmith, Daniel Clarence	M. 4
454–	Stein, Lollie Alvine	S.; L. A. 4
1589	Stelling, Charles Henry Andrew	M. 1
820–	Sterling, Editha Hortense	G.
1324–	Sterling, Mrs. Jessie Bowen	G.
1528–	Stevens, Olive Edson	S.
404	Stevenson, John Ogilvie, Jr.	L. 3
625–	Stewart, Gretchen	L. A. u.
246	Stimmel, Edgar Clifton	D. 3

1325	Stockdale, Charles Paul	M. 1
1328–	Stockdale, Ella Naoma	L. A. 1
1563	Stoltenberg, Walter Peter	M. 1
1408	Stookey, Stephen W.	G.
901	Storck, Arthur Herman	S.; L. A. 4; L. u.
162	Storey, Leslie	L. A. 4; L. u.
1590	Story, William Henry	D. 1
1161–	Stover, Bessie Esther	G.
456	Stover, Samuel Kirkwood	L. A. 3
1802–	Strange, Joanna Gleed	L. A. u.
2108–	Stratton, Frances Eleanor	L. A. u.
844	Stromsten, Frank Albert	G.
1960	Strong, Harold Beecher	L. 1
157	Strong, Harry Lee	P. 2
1897	Strong, Leander James	M. u.
1963	Struble, Isaac Irving	L. A. 1
972	Stryker, Clarence Andrew	L. A. 3
1700	Stuart, Charles Edward	L. 1
434–	Stuart, Clara	L. A. 4.
2121–	Sturm, Mrs. Isabel Currier	L. A. u.
1114	Sullivan, Eugene John	L. 2
123	Sullivan, Lawrence Francis	M. 2
291	Sullivan, Peter Francis	P. 2
1625	Summerville, Robert James	L. 1; L. A. u.
1662–	Sunier, Bertha	L. A. 1
771–	Sunier, Fanny Annette	L. A. 4
85	Suthers, Wilfie Abraham	D. 3
545	Swab, Charles Caspar	M. 2
1761	Swaggart, Luman Birch	L. A. 3
98	Swain, Jay Wheaton	P. 2
397	Swan, Charles James	D. 2
1909	Swartley, Joseph Frank	L. 1
670	Swartz, Raymond Hamilton	L. A. 3
271	Sweney, Marshall Charles	S.; L. A. 3
177	Swift, Charles Henry	M. 2
866	Swift, John Loras	L. 2
2102	Swigart, Willard Carlisle	L. A. 1
552–	Swire, Ethelind	L. A. 2
592–	Swisher Esther McDowall	G.
279–	Switzer, Grace Ellen Elizabeth	S.; L. A. 4
208–	Switzer, Katherine May	L. A. 3
1456–	Swoyer, Loemma E.	L. A. u.

161	Talcott, Don Deroy	M. 2
933	Tamisiea, James Hugh	M. 4.
1766	Taylor, Edwin Scott	D. 1
903	Taylor, John Lealand	M. 4
644-	Taylor, Maude Estella	L. A. 2; M. c
1904	Taylor, Maurice Hume	D. 2
2052-	Teeters, Mrs. Helen Hollister	G.
1518	Tellier, Frank Ellsworth	S.
1953	Terrell, Charles Everett	L. A. 1
42	Teufel, John Carl	M. 2
111	Thierman, Ernest Julius	M. 2
410	Thode, Guy Eugene	D. 3
927	Thomas, Abram Owen	L. A. 2
1647	Thomas, Clarence I.	M. 1
1544-	Thomas, Ruth Jane	S.
1362	Thomas, Seth	L. A. 3
1193	Thomas, Simeon E.	G.
1797	Thompson, Earl G.	D. 1
1601-	Thompson, Effie Louise	L. A. 1
1016-	Thompson, Elizabeth	L. A. 2
1034	Thompson, Herbert Garfield	L. 2
1975	Thompson, James Reed	M. 1
1077	Thompson, John Wesley	S.; L. A. 2
258	Thompson, Ralph Ulysses	L. 2
1691	Thornburg, William Vestal	M. 1
1494	Thornburg, William Burton	S.; p. r.
1164	Thurston, Lloyd Leonard	L. 3
1176	Tilden, William Clark	M. 4
1983	Tinker, Francis Enos	D. 1
1507-	Tipple, Fannie Fern	S.
472	Tobin, Richard Griswold	L. 1
1922	Tollifson, Thomas Franklin	M. u.
369	Tourgee, John Birney	L. 2
2120	Treichler, Joseph Rhoades	L. A. 1
1395	Trost, Frederick William	L. A. 3
1360-	Truman, Emma Victoria	S.; L. A. 4
452-	Tulloss, Carolyn M.	L. A. 4
2149-	Turk, Helen	M. n.
517	Turner, Edward Marsh	M. 2; L. A. u.
1874	Tweed, Horace Anton	L. A. 1
1501-	Ullrich, Mrs. Linna	S.
2021-	Valenta, Mrs. Emma Jane Randall	L. A. 2

1869	Van de Steeg, George Herbert	L. A. 1
682	VandenBerg, Guy	P. 2
702	VanderPloeg, William Garfield	L. 2
1863	Van der Zee, Jacob	L. A. 1
1901	Van Metre, Richard Thompson	M. 1
633	Van Ness, Edwin Jones	L. 2
648	Van Vleck, Alfred Wheeler	L. A. u.
1902	Vaughan, Claude Luverne	M. 1
1920	Vaughn, John Thomas	L. 1; L. A. u.
378–	Veblen, Agnes Kari Anne	S.; L. A. 2
393–	Veblen, Gertrude Ingeborg	L. A. 2
395–	Veblen, Signy Arndora	L. A. 1
1596	Violette, Josiah Claire	M. 1
16	Volland, Roscoe Henry	D. 3
1733	Voogd, Dick	L. 2
1553	Vos, John	D. 1
2135–	Wagner, Harriette Daisy	M. n.
892	Wagner, William Christian	M. 3
1244–	Waite, Pearl Hortense	L. A. u.
281	Walker, Henry Grass	L. A. u.
267	Walker, James Henry	L. 2
1890–	Walker, Laura	L. A. 1
358	Walker, Robert Duncan	L. 2
2110	Walker, Stuart Phelps	L. 1
637	Walsh, John Graney	L. A. 3; M. c.
307–	Walters, Lillie Mae	L. A. 2
1592	Walters, Theodore Augustus	L. 1; G.
365	Waltman, William Henry	H. M. 3
1689–	Ward, Martha Viola	L. A. 3
796	Warner, Orlyn Dorphon	L. A. 2
1286	Washburn, Frank Augustus	M. 3
1934	Wassam, Clarence Wycliffe	L. A. 3
1504–	Waterbury, Ella Irene	S.; L. A. 1
1341	Waterman, William Thomas	L. 2
2123	Watkins, Joseph Cook	L. A. u.
931	Watland, Clarence	L. A. 2
1639	Watros, Ray Alfonso	D. 1
305	Watson, Harry Chibnail	L. A. 3
1413	Watson, Joseph Otis	G.
554	Watters, Henry Bertram	L. A. u.
1939	Watts, Ralph Newton	L. A. u.
29	Waud, Clarence Cary	D. 3

1892	Way, Clarence Logan	P. 1
1516–	Wayne, Mabel Alice	S.
1559	Webbles, William Fred	P. 1
1071	Weber, Frederick Henry	L. A. 4
1060	Weber, Harry	L. A. 3
1474	Weeks, Gaylord D.	G.
1182	Weiland, Frank Henry	D. 3
1554	Weir, Matt Blakely	M. 1
758	Welch, David Sewall	L. A. 2
185	Welch, Hershey Samuel	L. A. 3
1464	Weld, LeRoy Dougherty	S.; G.
1432	Weldy, Morton Eugene	G.
1201	Wells, James Harlan	M. 4
1707	Wells, John Dennison	L. A. 1
48	Welsh, Thomas William	M. 3
179	Wenner, Edward Jackson	L. 2; L. A. u.
1497–	Wertman, Margaret Maude	S.
1117	Werts, Charles Martel	G.; M. 4
2070	Wesley, Rolland De Witt	D. 1
486	West, George Humphrey	M. 3
1820	West, George Parsons	L. A. 1
1970	West, Philip Cecil	L. A. 1
1600	Westenhaver, Earl H.	D. 1
1921	Whaley, Guy Vernellen	M. 1
2058	Wharton, Jesse Rolland	L. A. 2
1463	Whedon, Arthur De Wett	S.
1595	Whicher, William Edward	M. 1
1930	Whitacre, Max,	L. A. 1
1166	Whitaker, Ellis John	M. 3
2083	Whitaker, Ralph Wallace	L. A. 3
2144–	White, Edith Emerson	M. u.
2146–	White, Rena E.	M. u.
1357	White, Warren Henry	S.; L. A. 2
385	White, Wilmer Welrose	L. 1
1852–	Whiting, Donna Marie	L. A. u.
2114	Whiting, Samuel Danforth	L. 1
270–	Whitley, Gladys Call	L. A. 3
902–	Whitmore, Clara B.	M. u.
2013–	Wickersham, Dorothy Irene	G.
2116–	Wickham, Mrs. Fanny Thompson	G.
1358	Wieben, Edward Emil	L. 1
425	Wiedow, Henry	M. 4

1770	Wiehr, Joseph	L. A. 1
1767	Wiese, Charles Arthur	D. 1
2148–	Wilantt, Altah Alethea	M. n.
609	Wilcox, William Henry	L. 2
1197	Wild, Peter Rowland	H. M. 3
1799	Wiler, Wesley David	D. 1
1804–	Wiley, Stella Lucile	L. A. 1
2028	Wilkins, Glen Horatio	L. 1
1772	Will, Charles Louis	L. 1; L. A. n.
1750	Wille, Otto Victor	L. A. 1
328	Willett, James Horace	L. 1
1910	Willging, Edgar Henry	L. 1
1731	Williams, Benjamin Parker	L. A. 1
1446–	Williams, Bertha Alice	G.
1212	Williams, Charles Allyn	G.
411	Williams, Creighton David	L. A. 2
1704–	Williams, Etta Louise	L. A. 1
1549–	Williams, Josephine Viola	S.
1167–	Williams, Mabel Clare	S.; G.
1025	Williams, Mark Wayne	S.; G.
512	Williams, Samuel Clyde	D. 2
173	Williams, Ralph Clinton	L. A. 4; L. c.
850–	Willis, Bertha Belle	S.
832–	Willis, Faith Gertrude	L. A. 4
1666	Willis, Harry Douglass	L. A. 2
2003	Willits, Ira Raymond	M. 1
546	Wilson, Carlton Charles	L. 2
1356–	Wilson, Clara Rosa	S.; L. A. 2
1841–	Wilson, Helen Benton	L. A. 1
1777–	Wilson, Jennie Louise	L. A. n.
446–	Wilson, Mary Alwilda	L. A. 4
1743	Wingert, Peter Earl	L. A. 1
1732	Wingert, Ralph D.	L. A. 1
549	Wise, George Chester	G.
506	Witter, Louis Agassiz	D. 3
598–	Wolf, Bertha Sara	L. A. 1
174	Wolfe, Channing Elmer	M. 3
1760	Wolverton, William Curtis	M. 1
1952	Wood, Clarence Daniel	L. 2
1982	Woodbridge, Ned	D. 1
2062	Woodruff, Lyman Wallace	D. 1
223	Wright, Charles Oliver	L. A. 3

2043	Wright, Charles Thomas	D. 1
626–	Wright, Grace	L. A. u.
1935	Wright, William Coutts	L. A. 1
1062	Wyant, Arthur C.	D. 1
186	Wyckoff, Craton	D. 2
1798	Wyland, Benjamin Franklin	L. A. 1
952	Yates, Edward Gilbert	L. 2
1679	Yavorsky, George William	M. 1
1612	Yeager, Charles	L. 1; L. A. u.
1223	Yeoman, Mitchell Brice	D. 3
1579	Young, Frank Glynn	H. M. 1
1938	Young, Hugh Edward	L. A. 1
747–	Young, Iowa Madge	L. A. 2
251	Young, James Myron	M. 3
1627	Young, Joseph Leroy	D. 1
1658–	Yule, Anna May	L. A. 1
302	Zika, George Albert	L. A. 1
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* Died September 30, 1901.

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BULLETIN OF THE STATE UNIVERSITY OF IOWA
NEW SERIES No. 67 MAY, 1903

CALENDAR

OF THE

STATE UNIVERSITY OF IOWA

IOWA CITY

1902-1903

PUBLISHED BY THE UNIVERSITY
IOWA CITY, IOWA
1903

THE UNIVERSITY BULLETINS PUBLISHED BY THE UNIVERSITY ARE ISSUED EVERY SIX WEEKS, DURING THE ACADEMIC YEAR, AT LEAST SIX NUMBERS EVERY CALENDAR YEAR. ENTERED AT THE POST OFFICE AS SECOND CLASS MAIL MATTER

By authority of the Board of Regents separate announcements of the following colleges and schools will be sent gratuitously, postage paid, to all persons who apply for them: Graduate College; College of Liberal Arts; of Law; of Medicine; of Homœopathic Medicine; of Dentistry; of Pharmacy; Iowa School of Political and Social Science; the Summer Session. In calling for announcements please state the college or school concerning which information is desired.

Address

THE PRESIDENT,
The State University of Iowa,
Iowa City, Iowa.

THE

STATE UNIVERSITY OF IOWA

IOWA CITY

CALENDAR

1902-1903

PUBLISHED BY THE UNIVERSITY
IOWA CITY, IOWA
1903

CALENDAR FOR 1903-1904

1903

JULY

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1904

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THE UNIVERSITY CALENDAR

1903–1904

1903

June 12, Friday	Anniversary exercises of the literary societies, 8 P. M.
June 14, Sunday	Baccalaureate address, 4 P. M.
June 15, Monday	Class Day exercises. Battalion drill and dress parade. Review by the Governor of Iowa, 4 P. M.
June 16, Tuesday	Alumni Day. Phi Beta Kappa address, 10 A. M. Alumni meeting, 2 P. M. Alumni dinner, 6 P. M.
June 17, Wednesday	Commencement, all colleges, 10 A. M. President's reception, 4 P. M.
June 18, 19, Thursday, Friday	Examination for admission to all colleges.
June 20, Saturday	Registration for the Summer Session begins, 9 A. M.
June 22, Monday	Instruction begins in the Summer Session, 7 A. M.
July 30, 31, Thursday, Friday	Examination by the State Board of Educational Examiners.
Aug. 1, Saturday	Summer Session ends.

SUMMER VACATION

Sept. 21, Monday	Examinations for admission. Registration in all colleges begins at 2 P. M.
Sept. 24, Thursday	Instruction begins in all colleges, 8 A. M. University Convocation; address by the President, 4 P. M.
Nov. 25, Wednesday	First quarter ends, 12 M. Thanksgiving recess, continuing until the following Tuesday.
Dec. 1, Tuesday	Second quarter begins, 8 A. M.
Dec. 24, Thursday	Holiday recess begins, 8 A. M.

1904

Jan. 6, Wednesday	Work resumed in all colleges, 8 A. M.
Feb. 13, Saturday	First semester ends, 6 P. M.
Feb. 15, Monday	Second semester begins, 8 A. M.
Feb. 20, Saturday	Annual lecture of the Sigma Xi, 8 P. M.
Feb. 22, Monday	University Convocation in celebration of Washington's birthday, 10:30 A. M.
April 14, Thursday	Third quarter ends, 6 P. M. All exercises suspended until the following Tuesday.
April 19, Tuesday	Fourth quarter begins, 8 A. M.
May 30, Monday	Decoration Day; all exercises suspended.
June 10, Friday	Anniversary exercises of the literary societies, 8 P. M.
June 12, Sunday	Baccalaureate address, 4 P. M.
June 13, Monday	Class Day exercises. Battalion drill and dress parade. Review by the Governor of Iowa, 4 P. M.
June 14, Tuesday	Alumni Day. Phi Beta Kappa address, 10 A. M. Alumni meeting, 2 P. M. Alumni dinner, 6 P. M.
June 15, Wednesday	Commencement, all colleges, 10 A. M. President's reception, 4 P. M.
June 16, 17, Thursday, Friday	Examinations for admission to all colleges.
June 18, Saturday	Registration for the Summer Session begins, 9 A. M.
June 20, Monday	Instruction begins in the Summer Session, 7 A. M.
July 28, 29, Thursday, Friday,	Examination by the State Board of Educational Examiners.
July 30, Saturday	Summer Session ends.

SUMMER VACATION

Sept. 19, Monday	Examination for admission. Registration in all colleges begins at 2 P. M.
Sept. 24, Thursday	Instruction begins in all colleges at 8 A. M.

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GEORGE ROYAL, M. D., Dean of the College of Homœopathic Medicine.

WILLIAM SUITS HOSFORD, D. D. S., Dean of the College of Dentistry.

EMIL LOUIS BOERNER, PHAR. D., Dean of the College of Pharmacy.

LAENAS GIFFORD WELD, M. A., Dean of the Graduate College.

ISAAC A. LOOS, D. C. L., Director of the Iowa School of Social and Political Science.

FREDERIC E. BOLTON, PH. D., Director of the Summer Session.

ANDREW A. VEBLEN, M. A., Secretary of the Faculty of the College of Liberal Arts.

HARRY SANGER RICHARDS, LL. B., Secretary of the Faculty of the College of Law.

ELBERT W. ROCKWOOD, M. D., Secretary of the Faculty of the College of Medicine.

WILLIAM LE CLAIR BYWATER, M. D., Secretary of the Faculty of the College of Homœopathic Medicine.

ARTHUR FAIRBANKS, PH. D., Secretary of the Faculty of the Graduate College.

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SUSAN G. PARISH, Principal of the Training School for Nurses.

JAMES GRANT GILCHRIST, M. D., Director of the Homœopathic Hospital.

MARY STEWART SIMS, Superintendent of Training School for Nurses, and of the Homœopathic Hospital.

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MERTON LEROY FERSON, LL. B., Law Librarian.

CHARLES CLEVELAND NUTTING, M. A., Curator of the Museum of Natural History.

BOHUMIL SHIMEK, M. S., Curator of the Herbarium.

PUBLIC LECTURES

1902

Sept. 25, Convocation. Address by the President of the University.

Sept. to Dec., Department of English; a course of illustrated lectures on Literary Landmarks of Mediæval England by Dr. Gilchrist.

Oct. 15, Auspices of Sigma Xi, "The Sonora Desert," Professor T. H. Macbride.

Nov. to March, University Lecture Course. Mrs. Bertha Kunz Baker, "If I Were King;" "L'Aiglon;" Leland T. Powers, "Lord Chumley;" "Monsieur Beaucaire;" Samuel Arthur King, Shakesperean Recital, "Hamlet;" Katherine Jewell Everts, "My Lady's Ring;" "The Spanish Gypsy;" Wm. J. Bryan; W. Bourke Cockran.

1903

Jan. 9, Convocation, The Hon. J. G. Schurman, LL. D., President of Cornell University, "Our Philippine Problem."

Jan. 22, Department of Public Speaking, "The Art of Public Speaking," Samuel Arthur King, M. A., of London, England.

Feb. 2, Archæological Institute, "Roman Triumphal Arches," Professor A. L. Frothingham, Jr., of Princeton University.

March 25, Archæological Institute, "Realism and Idealism in Greek Literature and Art," Professor Paul Shorey of the University of Chicago.

April 6, Archæological Institute, "Ancient Pueblos, Cliff Dwellings, and Mounds," by Professor W. J. McGee of the Smithsonian Institute.

May 7, Auspices of the Comité de l'Alliance Française, "Relations entre la France et les Etats Unis." Mabilleau.

Oct. to June, Department of Botany: Illustrated lectures weekly on topics connected with plant structure and plant life.

Nov. to May, Department of Geology: Illustrated lectures by Professor Calvin.

Feb. to March—Four lectures on Comparative Linguistics by Professors Potter, Eastman, Flom, and Dr. Hagen.

Nov. to April—Department of Greek Archæology. Occasional illustrated lectures on Greek History and Greek Art by Professor Fairbanks.

ORGANIZATION OF THE UNIVERSITY

The State University of Iowa is an integral part of the public school system of the state. As required by law, the work of the University is based upon the preparation afforded by the duly accredited high schools of the state, whose graduates are admitted to the undergraduate and professional courses upon presentation of the proper certificates. A sense of this vital connection with the public schools determines, in a large measure, the requirements for admission to the University, its spirit, and its course of study.

The control of the University is intrusted to a Board of Regents, consisting of the Governor of Iowa and the Superintendent of Public Instruction *ex-officiis*, and of one member elected by the General Assembly from each of the eleven congressional districts.

The University is administered through the following organizations:

THE COLLEGE OF LIBERAL ARTS, including Engineering and the Summer Session;
THE COLLEGE OF LAW;
THE COLLEGE OF MEDICINE;
THE COLLEGE OF HOMŒOPATHIC MEDICINE;
THE COLLEGE OF DENTISTRY;
THE COLLEGE OF PHARMACY;
THE GRADUATE COLLEGE;
IOWA SCHOOL OF POLITICAL AND SOCIAL SCIENCE AND OF COMMERCE;
THE HOSPITALS;
THE NURSES' TRAINING SCHOOLS.

THE MEMBERS OF THE FACULTIES

AND OTHER OFFICERS

GEORGE EDWIN MACLEAN, B. A., 1871; M. A., 1874, Williams; B. D., 1877, Yale; PH. D., 1883, Leipzig; LL. D., 1895, Williams.

President, 1899.* 603 College St. (2 Old Capitol)

AMOS NOYES CURRIER, B. A., 1856; M. A., 1859, Dartmouth; LL. D., 1893, Des Moines.

Professor and Head of the Department of Latin Language and Literature, and Dean of the College of Liberal Arts, 1867.
32 Bloomington St. (108 Liberal Arts)

PHILO JUDSON FARNSWORTH, B. A., 1854; M. A., 1857; M. D., 1858, Vermont; M. D., 1860, Coll. Phys. and Sur., New York.

Professor Emeritus of Materia Medica and Diseases of Children in the College of Medicine, 1868. Clinton, Iowa

JOHN CLINTON SHRADER, M. D., 1865, Coll. Phys. and Sur., Keokuk; M. D., Long Island Coll. Hospital, Brooklyn, N. Y.; M. A., 1877; LL. D., 1894, Western Coll.

Professor Emeritus of Obstetrics and Diseases of Women, 1869.
811 College St.

SAMUEL CALVIN, M. A., 1874, Cornell College; PH. D., 1888, Lenox; F. G. S. A.

Professor and Head of the Department of Geology, 1874.
522 N. Clinton St. (Science Hall, first floor)

THOMAS HUSTON MACBRIDE, B. A., 1869; M. A., 1873, Monmouth; PH. D., 1895, Lenox.

Professor and Head of the Department of Botany, 1878.
728 Washington St. (Science Hall, second floor)

JAMES GRANT GILCHRIST, M. D., 1863; M. A., 1890, Pennsylvania.

Professor of Surgery and Surgical Gynecology, College of Homœopathic Medicine, and Director of the Homœopathic Hospital.
615 N. Dubuque St. (Homœopathic Hospital)

*Date following title indicates year of appointment to service in the University. The names are arranged in groups according to seniority of appointment to present rank.

EMIL LOUIS BOERNER, PH. G., 1876, Philadelphia Coll. of Phar.; Phar. D., 1896, Iowa.

Professor of Practical Pharmacy, and Dean of the College of Pharmacy, 1885. 325 N. Dubuque St. (Pharmacy Laboratory)

LAUNCELOT WINCHESTER ANDREWS, B. PH., 1875, Yale; M. A., PH. D., 1882, Goettingen.

Professor and Head of the Department of Chemistry, 1885. 251 S. Johnson St. (Chemical Laboratory)

CHARLES HERBERT COGSWELL, M. D., 1866, Hahnemann College, Chicago.

Professor Emeritus of Obstetrics and Diseases of Women in the College of Homœopathic Medicine, 1885. Cedar Rapids, Ia. (Hom. Med. Hospital)

*GEORGE THOMAS WHITE PATRICK, B. A., 1878, Iowa; B. D., 1885, Yale; PH. D., 1888, Johns Hopkins.

Professor and Head of the Department of Philosophy, 1887. 704 N. Dubuque St. (209 Liberal Arts)

CHARLES BUNDY WILSON, B. A., 1884; M. A., 1886, Cornell.

Professor and Head of the Department of German Language and Literature. 311 N. Capitol St. (101 Liberal Arts)

LAWRENCE WILLIAM LITTIG, B. A., 1880; M. A., 1882, St. Vincent's College; M. D., 1883, Iowa; M. D., 1884, Pennsylvania; M. R. C. S., 1887, England.

Professor of Theory and Practice of Medicine, and Clinical Medicine in the College of Medicine, and Director of the University Hospital 1889. 102 S. Linn St.

ANDREW ANDERSON VEBLEN, B. A., 1877; M. A., 1880. Carleton College.

Professor and Head of the Department of Physics, and Secretary of the Faculty of the College of Liberal Arts, 1883. 707 N. Dubuque St. (Hall of Physics)

LAENAS GIFFORD WELD, B. S., 1883; M. A., 1885, Iowa.

Professor and Head of the Department of Mathematics, Dean of the Graduate College, and Dean of the Summer Session, 1886. 612 N. Dubuque St. (113 Liberal Arts)

CHARLES CLEVELAND NUTTING, B. A., 1880; M. A., 1882, Blackburn University.

Professor and Head of the Department of Zoology, and Curator of the Museum of Natural History, 1886. 922 E. Washington St. (Science Hall, third floor)

JAMES RENWICK GUTHRIE, B. S., 1878; M. A., 1881, Lenox; M. D., 1884, Iowa.

Professor of Obstetrics and Gynecology, and Dean of the College of Medicine, 1889. Dubuque, Ia. (University Hospital)

ISAAC ALTHAUS LOOS, B. A., 1876; M. A., 1879, Otterbein; B. D., 1881, Yale; D. C. L., 1898, Penn Coll.

Professor and Head of the Department of Sociology and Political Philosophy, and Director of the School of Political and Social Science, 1889. 22 E. Bloomington St. (205 Liberal Arts)

*Absent on leave in Europe, 1902-1903.

SAMUEL HAYES, B. S., 1869; M. S., 1876, Michigan; LL. B., 1891, Iowa.
Professor of Law, 1891 616 N. Dubuque St. (11 Old Capitol)

ELBERT WILLIAM ROCKWOOD, B. S., 1884; M. A. 1901, Amherst; M. D., 1895, Iowa.
Professor of Chemistry and Toxicology, and Secretary of the Faculty of the College of Medicine, 1888.
1011 Woodlawn. (Chemical Laboratory)

GEORGE ROYAL, M. D., 1882, N. Y. Hom. Med. Coll.
Professor of Materia Medica and Therapeutics, and Dean of the College of Homœopathic Medicine, 1892.
Des Moines, Iowa. (Hom. Hospital)

JAMES WILLIAM DALBEY, B. S., 1885; M. D., 1888, Illinois Coll.
Professor of Ophthalmology in the College of Medicine, 1889.
Cedar Rapids, Ia. (University Hospital)

CHARLES SUMNER CHASE, B. A., 1871, Cedar Valley Sem.; B. S., 1874, I. S. C., Ames; M. D., 1882, Rush Medical Coll., M. A., 1895, Iowa.
Professor of Materia Medica and Therapeutics in the College of Medicine, 1892. Waterloo, Ia. (University Hospital)

*FRANK JOHN NEWBERRY, M. D., 1888, Chicago Hom. Med. Coll.; M. D., 1891, Illinois Medical; M. S., 1893, Upper Iowa University; O. et A. Chir., 1890, New York Ophthalmic.
Professor of Ophthalmology, Otology, and Physical Diagnosis, and Diseases of the Respiratory Tract in the College of Homœopathic Medicine, 1890. 325 Summit St. (Hom. Hospital)

WALTER LAWRENCE BIERRING, M. D., 1892, Iowa.
Professor of Bacteriology and Pathology, 1893.
Cor. Governor St. and Iowa Ave. (1 Liberal Arts)

WILLIAM CRAIG WILCOX, B. A., 1888; M. A., 1891, University of Rochester.
Head of the Department of History and Professor of American History, 1894. 629 N. Dubuque St. (222 Liberal Arts)

FRANK THOMAS BREENE, D. D. S., 1883; M. D., 1893, Iowa.
Professor of Operative and Clinical Dentistry, and Therapeutics, 1888.
419 N. Clinton St. (Dental Hall)

WILLIAM S. HOSFORD, B. A., 1883; D. D. S., 1892, Iowa.
Professor of Dental Prosthesis, and Dean of the College of Dentistry, 1893. 505 College St. (1 Dental Hall)

FREDERICK C. L. VAN STEENDEREN, M. A., 1893, Penn Coll.
Professor and Head of the Department of French Language and Literature, 1893. 309 Church St. (120 Liberal Arts)

*Resigned January 1, 1903.

ALFRED VARLEY SIMS, C. E., 1888, Pennsylvania.
Professor and Head of the Department of Civil Engineering, 1895.
Bloom Terrace. (Engineering Hall)

JOHN WALTER HARRIMAN, M. D., 1891, Iowa.
Professor of Anatomy, 1896. 1 Bloom Terrace. (Medical Hall)

MARTIN JOSEPH WADE, LL. B., 1886, Iowa.
Professor of Medical Jurisprudence in the College of Medicine, and Lecturer on Law in the College of Law. 123 N. Clinton St.

GILBERT LOGAN HOUSER, B. S., 1891; M. S., 1892, Iowa; PH. D., 1901, Johns Hopkins.
Professor and Head of the Department of Animal Morphology and Physiology, 1892. 422 Iowa Ave. (Science Hall, first floor)

BENJAMIN FRANKLIN SHAMBAUGH, B. PH., 1892; M. A., 1893, Iowa; PH. D., 1895, Pennsylvania.
Professor and Head of the Department of Political Science, 1895.
219 N. Clinton St. (202 Liberal Arts)

WILLIAM ROBERT WHITEIS, B. S., 1892; M. D., 1895; M. S., 1895, Iowa.
Professor of Histology and Embryology in the College of Medicine, 1898. 220 S. Johnson St. (Histological Laboratory—16 Liberal Arts)

HARRY SANGER RICHARDS, PH. B., 1892, Iowa; LL. B., 1895, Harvard.
Professor of Law, and Secretary of the University Senate, 1898.
West Side. (14 Old Capitol)

LEE WALLACE DEAN, B. S., 1894; M. S., 1896; M. D., 1896, Iowa.
Professor of Otology and Rhino-Laryngology, and Assistant in the Department of Ophthalmology, 1898.
12½ S. Clinton St. (University Hospital)

ELMER ALMY WILCOX, B. A., 1891, Brown.
Professor of Law, 1899. 1026 Washington St. (4 Old Capitol)

CLARK FISHER ANSLEY, B. A., 1890, Nebraska.
Professor and Head of the Department of English, 1899.
1041 Woodlawn. (227 LiberalArts)

LEONA ANGELINE CALL, B. A., 1880; M. A., 1883, Iowa.
Professor of Greek Language and Literature, 1885.
21 N. Dubuque St. (106 Liberal Arts)

THE REV. HENRY EVARTS GORDON, B. A., 1879; M. A., 1901, Amherst.
Professor of Public Speaking, 1900. 303 N. Capitol St. (312 Liberal Arts)

THE REV. ARTHUR FAIRBANKS, B. A., 1886, Dartmouth; PH. D., 1890, Freiburg, i. B.
Professor of Greek Literature and Archæology, Head of the Department of Greek; Secretary of the Graduate Faculty; University Editor, 1900. 7 E. Bloomington St. (310 Liberal Arts)

ALDEN ARTHUR KNIPE, M. D., 1896, Pennsylvania.
Professor and Director of Physical Culture, 1900. (Armory)

FREDERICK ELMER BOLTON, B. S., 1893; M. S., 1896, Wisconsin; PH. D., 1898, Clark.
Professor and Head of the Department of Education; Director of the Summer Session, 1900.
1019 College St. (217 Liberal Arts)

WILLIAM J. BRADY, D. D. S., 1886, Iowa.
Professor of Orthodontia and Dental Technic, 1899.
1027 College St. (Dental Hall)

COLONEL GEORGE RITTER BURNETT, Graduate U. S. Mil. Acad., West Point, 1880; of U. S. School of Application, Ft. Leavenworth, 1885; First Lieut. U. S. A.
Professor of Military Science and Tactics, and Commandant of the Cadet Battalion, 1901. 510 College St. (Armory)

CHARLES NOBLE GREGORY, B. A., 1871; LL. B., 1872; M. A., 1876; LL. D., 1901, Wisconsin.
Professor of Law, and Dean of the College of Law, 1901.
227 N. Clinton St. (5 Old Capitol)

ERNEST ALBERT ROGERS, D. D. S., 1892, Iowa.
Professor of Dental Anatomy and Regional Anatomy, and Clinical Demonstrator in the College of Dentistry, 1893.
427 Ronalds St. (Dental Hall)

BOHUMIL SHIMEK, C. E., 1883; M. S., 1902, Iowa.
Professor of Physiological Botany, Professor of Botany in the College of Pharmacy, and Curator of the Herbarium, 1895.
529 Brown St. (Science Hall, second floor)

FRANKLIN HAZEN POTTER, B. A., 1892; M. A., 1895, Colgate.
Professor of Latin, 1895. 527 N. Linn St. (111 Liberal Arts)

CARL EMIL SEASHORE, B. A., 1891, Gustavus Adolphus; PH. D., 1895, Yale.
Professor of Psychology, 1897. 204 Fairchild St. (211 Liberal Arts)

WILBER JOHN TEETERS, B. S., 1893; M. S., 1898, Mt. Union College; PH. C., 1895, Michigan.
Professor of Pharmacognosy, and Director of the Pharmaceutical Laboratory, 1895. West Side. (Chemical Laboratory)

RUSSELL D. GEORGE, M. A., 1898, McMaster University, Toronto.
Professor of Petrology and Economic Geology, 1900.
110 N. Clinton St. (Hall of Science)

HARRY GRANT PLUM, B. PH., 1894; M. A., 1896, Iowa.
Professor of European History, 1900.
222 Fairchild St. (315 Liberal Arts)

JOHN FRANKLIN BROWN, B. PH., 1889; M. A., 1895, Earlham; PH. D., 1896, Cornell.
Professor in Education, and Inspector of High Schools, 1901.
110 N. Clinton St. (216 Liberal Arts

WILLIAM JEPSON, M. D., 1886, Iowa; B. S., 1890, University of the Northwest; M. D., 1891, Jefferson Medical College; M. D., 1891, Pennsylvania; L. R. C. S., and L. R. C. P., Edinburgh, and L. R. C. P. and S., Glasgow, 1897.
Professor of Surgery in the College of Medicine, 1902.
Sioux City, Ia. (University Hospital)

GEORGE T. FLOM, B. L., 1893, Wisconsin; M. A., 1894, Vanderbilt; PH. D., 1899, Columbia.
Acting Professor in charge of Scandinavian Languages and Literatures, 1900. 124 Church St. (10 Liberal Arts)

BENJAMIN RICHARD JOHNSTON, M. D., 1893, Hering College, Chicago.
Acting Professor in charge of Theory and Practice, College of Homœopathic Medicine, 1900. Cedar Rapids. (Homœopathic Hospital)

FREDERICK JACOB BECKER, M. D., 1886, Iowa; M. D., 1887; Hahnemann Medical College of Philadelphia.
Acting Professor in charge of Obstetrics and Gynecology, College of Homœopathic Medicine, 1902. 919 E. College St. (Hom. Hospital)

CHARLES SCOTT MAGOWAN, C. E., 1884; M. A., 1887, Iowa.
Assistant Professor of Civil Engineering, 1886.
304 Summit St. (South Hall)

ARTHUR G. SMITH, B. PH., 1891; M. A., 1895, Iowa.
Assistant Professor of Mathematics, 1893.
West Side. (11 Liberal Arts)

HENRY FREDERICK WICKHAM, M. S., 1894, Iowa.
Assistant Professor of Zoology, and Assistant Curator of the Museum of Natural History, 1894. 911 Iowa Ave. (Science Hall, third floor)

FREDERICK BERNARD STURM, B. A., 1892, Michigan.
Assistant Professor of German, 1892.
402 Churh St. (102 Liberal Arts)

ALICE YOUNG, B. L., 1896, Minnesota.
Assistant Professor of English, and Dean of Women, 1900.
111 N. Clinton St. (117 Liberal Arts)

CLARENCE WILLIS EASTMAN, B. S., 1894, Worcester Polytechnic; M. A., PH. D., 1898, Leipzig.
Assistant Professor of German, 1898.
225 E. Fairchild St. (102 Liberal Arts)

*WILLIAM ROLLA PATTERSON, B. Di., 1888; B. S., 1889, Iowa State Normal; B. PH., 1895, Iowa; PH. D., 1898, Pennsylvania.
Assistant Professor of Statistics and Economics, 1898.
505 Washington St. (209 Liberal Arts)

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*Absent on leave.

JOHN T. McCLINTOCK, B. A., 1894, Parsons College; M. D., 1898, Iowa.
Assistant Professor in charge of Physiology in the College of Medicine, 1891. 425 Iowa Avenue. (Physiological Laboratory)

EMLIN McCLAIN, B. PH., 1871; B. A., 1872; LL. B., 1873; M. A., 1882; LL. D., 1891, Iowa; LL. D., 1891, Findlay College.
Lecturer on Law, 1881. 400 N. Clinton St. (5 Old Capitol)

GERSHOM HYDE HILL, B. A., 1871, Iowa Coll.; M. D., 1874, Rush Medical; M. A., 1881, Iowa Coll.
Lecturer on Insanity, 1890. Des Moines, Iowa

JOSEPH JASPER McCONNELL, B. A., 1876; B. Di., 1878; M. A., 1880, Iowa.
Lecturer on Education, 1891. Cedar Rapids, Iowa

HORACE EMERSON DEEMER, LL. B., 1879, Iowa.
Lecturer on Law, 1899. Red Oak, Iowa

JAMES FRED CLARK, B. A., 1886; M. A., 1889, Iowa; M. D., 1889, Pennsylvania.
Lecturer on Hygiene in the College of Medicine, 1899. Fairfield, Iowa. (Hall of Medicine)

JOHN BLAIR KESSLER, M. D., 1887, Iowa.
Lecturer on Dermatology in the College of Medicine, 1899. Cor. Clinton and Washington Sts.

ELI GRIMES, M. D., 1897, Iowa.
Lecturer on Electro-Therapeutics in the College of Medicine, 1900. Des Moines, Iowa

GEORGE EDWARD DECKER, B. S., 1895; M. D. 1897, Iowa.
Lecturer on Pædiatrics in the College of Medicine, 1900. Davenport, Iowa

WILLIAM LECLAIRE BYWATER, M. D., 1897, Iowa; O. et A. Chir., 1900, New York Ophthalmic.
Lecturer on Physical Diagnosis and Diseases of the Lungs, and Secretary of the Faculty of the College of Homœopathic Medicine, 1900. 314 Church St. (Homœopathic Hospital)

LUTHER ALBERTUS BREWER, B. A., 1883; M. A., 1886, Pennsylvania College.
Lecturer on Journalism, University Publisher, 1900. Cedar Rapids, Iowa

JENNINGS PRICE CRAWFORD, M. D., 1893, Iowa.
Lecturer on Surgical Technic, 1900. Davenport, Iowa

CHARLES R. BAKER, D. D. S.
Lecturer on Ceramics in the College of Dentistry. Davenport, Iowa.

THE REV. GEORGE LUTHER CADY, B. A., 1890, Olivet College.
Lecturer on Sociology, 1900. 725 N. Linn St.

THEODORE L. HAZARD, M. D., 1883, Michigan.
Lecturer on Pædology, and Assistant to the Chair of Theory and Practice, College of Homœopathic Medicine, 1892.
114 Fairchild St. (Hom. Hospital)

GEORGE VAN INGEN BROWN, D. D. S., 1881, Pennsylvania College of Dental Surgery; M. D., 1895; C. E., 1896, Milwaukee Medical College; A. B., 1899, Northern Illinois College.
Special Lecturer in Dental Pathology and Dental Surgery. 1902.
Milwaukee, Wis.

BERTHA GILCHRIST RIDGWAY,
Librarian, 1898. Clinton St. (General Library, Liberal Arts)

HARRIET ANN WOOD, B. A., 1893, Vassar.
Cataloguer, 1901. 629 N. Dubuque St. (306 Liberal Arts)

MABEL COLCORD, B. A., 1895, Radcliffe.
Assistant Cataloguer, 1902. 21 N. Dubuque St. (306 Liberal Arts)

IDA ESTELLE SAWYER, B. PH., 1896, Northwestern; B. L. S., 1900, Illinois.
Reference Assistant in Library, 1902.
21 N. Dubuque St. (303 Liberal Arts)

JOANNA GLEED STRANGE.
Assistant in the Library, 1901. 322 E. Bloomington. (306 Liberal Arts)

NYLE WILLIAM JONES.
Assistant in the Library, 1902. 510 S. Gilbert St. (303 Liberal Arts)

MERTON LEROY FERSON, B. PH., 1900; LL. B., 1901, Iowa.
Law Librarian, 1902. 508 Iowa Avenue. (Law Library, Old Capitol)

S. WALTER FARQUHAR.
Assistant in Law Library, 1901.
117 Burlington St. (Law Library, Old Capitol)

ULYSSES GRANT HAYDEN, M. Di., 1901, Iowa State Normal.
Assistant in Law Library, 1902.
103 N. Capitol St. (Law Library, Old Capitol)

JOHN ROY PING.
Assistant in Law Library, 1902.
114 Harrison St. (Law Library, Old Capitol)

BERTHA BELLE QUAINTANCE, B. A., 1899, Nebraska.
Registrar, 1900. 111 N. Clinton St. (Basement, Old Capitol)

CLARA LOUISE ABERNETHY, B. A., 1902, Iowa.
Assistant Registrar, 1902. 21 N. Dubuque St. (Basement, Old Capitol

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*HERBERT CLIFFORD DORCAS, B. PH., 1895, Iowa.
Instructor in Education, and University Examiner, 1895.
427 Ronalds St. (218 Liberal Arts)

*Absent on leave.

LOUISE ELIZABETH HUGHES, B. PH., 1878; M. A., 1881; B. A., 1899, Iowa.
Instructor in Latin, 1896. 122 N. Capitol St. (112 Liberal Arts)

CARL LEOPOLD VON ENDE, B. S., 1893; M. S. 1894, Iowa; PH. D., 1899, Goettingen.
Instructor in Chemistry, 1899. West Side. (Chem. Lab'y)

JOHN VAN ETTEN WESTFALL, B. S., 1895, Cornell; PH. D., 1898, Leipzig.
Instructor in Mathematics, 1899. 127½ S. Dubuque St. (12 Liberal Arts)

SIVERT N. HAGEN, B. A., 1896, Luther College; PH. D., 1900, Johns Hopkins.
Instructor in English, 1900. 209 Fairchild St. (207 Liberal Arts)

CHARLES F. LORENZ, B. S., 1897; M. S., 1898, Iowa.
Instructor in Physics, 1900. West Side. (Hall of Physics)

JOHN J. LAMBERT, B. Di., 1896; M. Di., 1897, Iowa State Normal; B. PH., 1899; M. S., 1901, Iowa.
Instructor in Animal Morphology and Physiology, 1898.
120 E. Market St. (Science Hall, first floor)

FRANCIS NEWTON BRINK, B. PH., 1899; M. S., 1901, Iowa.
Instructor in Chemistry, 1898. 510 Reno St. (Chemical Laboratory)

ADELBERT W. STARBUCK, D. D. S., 1898, Iowa.
Demonstrator of Operative Dentistry, 1900.
122 E. Court St. (Dental Hall)

STEPHEN HAYES BUSH, B. A., 1901; M. A., 1902, Harvard.
Instructor in French, 1901. 221 Fairchild St. (120 Liberal Arts)

JOHN P. MULLIN, M. D., 1893, Iowa.
Demonstrator of Anatomy, 1901. 104 E. Bloomington

SAM BERKLEY SLOAN, B. A., 1899, Nebraska.
Instructor in English, 1899.
506 N. Linn St. (118 Liberal Arts)

HENRY WALDGRAVE STUART, B. PH., 1895, California; PH. D., 1900, Chicago.
Instructor in Philosophy, 1901. 221 Fairchild St. (209 Liberal Arts)

ALBERTUS JOSEPH BURGE, M. D., 1900, Iowa.
Instructor in Physical Diagnosis in the College of Medicine.
22½ S. Clinton St.

HENRY MORROW, JR., D. D. S., 1897, Iowa.
Demonstrator of Prosthetic Dentistry. 505 College St. (Dental Hall)

PAUL SKEELS PEIRCE, B. PH., 1897, Cornell; PH. D. 1900, Yale.
Instructor in History, 1902. 124 Church St. (223 Liberal Arts)

MARGARET A. SCHAFFNER, B. A., 1895, Emporia; M. A., 1899; PH. D., 1902, Wisconsin.
Instructor in Sociology and Economics, 1902.
114 N. Capitol St. (205 Liberal Arts)

J. PERCIVAL HUGGETT, M. Di., 1892, Iowa State Normal.
Instructor in Education and Acting University Examiner, 1902.
923 Iowa Ave., (218 Liberal Arts)

FRANK EDWARD HORACK, B. PH., 1897; M. A., 1899, Iowa; PH. D., 1902, Pennsylvania.
Instructor in Political Science, 1902.
120 N. Dodge St. (202 Liberal Arts)

LOUIS DELAVAN NILES, M. D., 1886, Michigan; B. S., 1901, Albion College.
Instructor in Chemistry in the College of Medicine, 1902.
116 E. Jefferson St. (Chem. Lab.)

WILLIAM EDMUND BECK, B. S. 1900; M. S., 1902, Iowa.
Assistant Instructor in Mathematics, and Assistant at the Observatory, 1900. 518 S. Clinton St. (115 Liberal Arts)

FREDERICK WILLIAM BAILEY, B. S. 1901, Iowa.
Assistant Instructor in Physiology in the College of Medicine, 1901.
214 Davenport St. (Physiological Laboratory)

MABEL CLARE WILLIAMS, B. PH., 1899, Iowa.
Assistant Instructor in Psychology, 899.
108 N. Johnson St. (215 Liberal Arts)

JACOB ELON CONNER, B. A., 1891, Iowa.
Assistant Instructor in Commerce and Finance, 1900.
222 Ronalds St. (208 Liberal Arts)

PERCIVAL HUNT, M. Di., 1897, Iowa State Normal; B. A., 1900, Iowa.
Assistant Instructor in English, 1900.
215 Ronalds St. (226 Liberal Arts)

FRANK ALBERT STROMSTEN, B. S., 1900; M. S., 1902, Iowa.
Assistant Instructor in Animal Morphology, 1900.
120 E. Market St. (Science Hall, first floor)

KATHERINE PAINE, B. PH., 1889, Iowa.
Assistant Instructor in Latin, 1900. 513 Summit St. (109 Liberal Arts)

ALICE ANKENEY, B. A. 1897, Wells College.
Assistant Instructor in Chemistry, 901.
728 E. Washington St. (Chemical Laboratory)

JOHN GABBERT BOWMAN, B. A., 1899, Iowa.
Assistant Instructor in English, 1901.
215 Ronalds St. (226 Liberal Arts)

ALDEN ROBBINS HOOVER, B. S., 1902, Iowa.
Assistant Instructor in Histology and Embryology, 1901.
103 N. Capitol St. (19 Liberal Arts)

HENRY ALBERT, B. S., 1900; M. D., 1902; M. S., 1902, Iowa.
Assistant Instructor in Pathology and Bacteriology, 901.
120 E. Market St. (2 Liberal Arts)

THOMAS WARNER MITCHELL, B. A., 1900, University of Washington.
Assistant Instructor in Economics and Statistics, 1902.
522 E. Bloomington St. (208 Liberal Arts)

HARRIETTE GRACE HOLT, B. PH., 1896, Iowa.
Assistant Instructor in French, 1902. 225 Iowa Ave. (6 Liberal Arts)

GEORGE PAUL KIER, D. D. S., 1901, Iowa.
Assistant Demonstrator of Operative Dentistry, and Assistant in Histology, 1902. 120 N. Dubuque St. (Dental Hall)

*JAMES BAKER DEWEY, D. D. S., 1901, Iowa.
Assistant Demonstrator of Prosthetic Dentistry, 1902.
420 N. Linn St. (Dental Hall)

WILLIAM JOSEPH JEFFERS, D. D. S., 1902, Iowa.
Assistant Demonstrator of Prosthetic Dentistry, 1902.
120 N. Dubuque St. (Dental Hall)

BERTON ALONZO SMALL, D. D. S., 1902, Iowa.
Assistant Demonstrator of Prosthetic Dentistry, 1902.
221 Court St. (Dental Hall)

ROSCOE HENRY VOLLAND, B. DI., 1898; M. DI., 1899, Iowa State Normal; D. D. S., 1902, Iowa.
Assistant Demonstrator of Operative Dentistry, 902.
221 Court St. (Dental Hall)

BYRON JAMES LAMBERT, B. DI., 1896; M. DI., 1897, Iowa State Normal; B. PH., 1900; B. S. in C. E., 1901, Iowa.
Assistant Instructor in Civil Engineering, 1902.
24 N. Clinton St. (South Hall)

GEORGE REX HAYLER, B. S. in C. E., 1902, Iowa.
Assistant Instructor in Civil Engineering, 1903.

LEE PAUL SIEG, B. S., 1900; M. S., 1901, Iowa.
Fellow in Physics, 1900. 314 E. Church St. (Hall of Physics)

HELEN MAY EDDY, B. A., 1900, Iowa.
Fellow in Latin, 1901. 4 Jefferson St. (112 Liberal Arts)

HARRY EDWARD BURTON, B. A., 1901, Iowa.
Fellow in Mathematics, 1901. 221 Church St. (115 Liberal Arts)

JAMES HENRY LEES, B. DI., 1893; M. DI., 1897, Iowa State Normal; B. A., 1901, Coe College.
Fellow in Geology, 1901. 923 Iowa Ave. (Science Hall)

*Absent on leave.

MARY EMMA POLK, B. A., 1900, Iowa.
Fellow in English, 1902. 96 E. Market St. (226 Liberal Arts)

MARY GROVE CHAWNER, B. A., 1896, M. A., 1902, Penn College.
Fellow in English, 1902. 720 E. Jefferson St. (226 Liberal Arts)

FLETCHER BRIGGS, B. PH., 1901; M. A., 1902, Iowa.
Fellow in German, 1902. 213 E. Market St. (103 Liberal Arts)

THEODORE J. SAAM, B. S., 1898, Lenox.
Fellow in History, 1902. 324 Davenport St. (223 Liberal Arts)

ARTHUR HUBERT VANDIVERT, PH. C., 1879, Michigan.
Fellow in Medical Chemistry, 1902. 421 S. Dubuque St. (Chem. Lab.)

CHARLES IRWIN LAMBERT, B. DI., 1896; M. DI., 1897, Iowa State Normal; B. S., 1901, Iowa.
Fellow in Pathology and Bacteriology, 1900.
120 E. Market St. (1a Liberal Arts)

WALTER MARTINUS BOEHM, B. S., 1902, Iowa.
Scholar in Physics, 1900. 406 S. Clinton St. (Hall of Physics)

CHARLES SCHUTZ KRAUSE, B. S., 1902, Iowa.
Scholar in Pathology and Bacteriology, 1901.
9½ S. Dubuque St. (1a Liberal Arts)

FRED JAY SEAVER, B. S., 1902, Morningside College.
Scholar in Botany, 1902. 402 Iowa Ave., (Science Hall, second floor)

SARAH RUTH QUIGLEY, B. PH., 1902, Iowa.
Scholar in English, 1902. 419 N. Dubuque St. (226 Liberal Arts)

JOSEPH HARDING UNDERWOOD, B. A., 1902, Western College.
Scholar in Economics and Statistics, 1902.
307 Iowa Ave. (205 Liberal Arts)

EDWARD ROBERT COLLINS, B. S., 1895, Iowa State Normal; B. S., 1902, Iowa.
Scholar in Education, 1902. 313 S. Dubuque St. (220 Liberal Arts)

FANNY ANNETTE SUNIER, B. PH., 1902, Iowa.
Scholar in French, 1902. West Side. (6 Liberal Arts)

CHARLOTTE MARIE LORENZ, B. A., 1902, Iowa.
Scholar in German, 1902. West Side. (8 Liberal Arts)

MABEL CLARE SMITH, B. A., 1902, Iowa.
Scholar in Greek, 1902. 21 N. Dubuque St. (310 Liberal Arts)

LINCOLN FREDERICK SCHAUB, B. A., 1901, Charles City College.
Scholar in Philosophy, 1902. 208 Fairchild St. (214 Liberal Arts)

THOMAS FARRELL, B. A., 1902, Iowa.
Scholar in Public Speaking, 1902. 406 N. Gilbert St. (312 Liberal Arts)

JOHN MILTON MAHAFFEY, B. PH., 1902, Iowa.
Scholar in Sociology, 1902. 318 S. Clinton St. (205 Liberal Arts)

WILLIAM B. BELL, M. DI., 1899, Iowa State Normal; B. A., 1902, Iowa.
Scholar in Zoology, 1902.
318 N. Dubuque St. (Science Hall, third floor)

ZADA MARY COOPER, PH. G., 1897, Iowa.
Assistant in Pharmaceutical Laboratory, 1897.
415 E. Washington St. (Pharm. Lab.)

HARVEY HAYES LOCHRIDGE, B. S., 1901, Beloit.
Assistant in Chemistry, 1901. 514 N. Linn St. (Chemical Laboratory)

MARY SLEIGHT EVERTS.
Assistant in Public Speaking, 1901. 419 N. Dubuque St.

LEORA JOHNSON, M. D., 1890, Iowa.
Clinical Assistant to the Chair of Surgery, College of Homœopathic Medicine, 1890. 12 N. Clinton St. (Hom. Hospital)

RAYMOND EDWARD PECK, M. D., 1897, Iowa.
Assistant to the Chair of Surgery, 1899.
Davenport, Ia. (Hom. Hospital)

EDWARD ELLSWORTH BLYTHE, B. PH., 1900, Iowa.
Assistant in Histology, 1901. 4 Prentiss St.

JOHN G. MUELLER, M. D., 1895, Iowa.
Assistant in Gynecology in the College of Medicine, 1901.

LINTON W. STRUBLE, M. D., 1897, Iowa.
Assistant in Materia Medica in the College of Homœopathic Medicine, 1901. West Liberty, Iowa. (Homœopathic Hospital)

HENRY DELAVAN HOLMAN.
Senior Assistant in Anatomy, 1902. 512 Iowa Ave.

HARRY MORGAN IVINS.
Assistant in Botany, 1902. 311 Iowa Ave. (Science Hall, second floor)

OSCAR SYLVESTER GRAY.
Junior Assistant in Anatomy, 1902. 706 Market St.

CLIFFORD M. CLINE.
Prosector in Anatomy, 1902. 426 S. Clinton St.

WILLIAM CURTIS WOLVERTON.
Prosector in Anatomy, 1902. 407 S. Capitol St.

JOHN WILLIAM CARVILLE.
Assistant in Geology, 1892. 610 Jefferson St. (Science Hall, first floor)

RUDOLPH MARTIN ANDERSON.
Taxidermist. 8 College St. (Science Hall, third floor)

CLARA B. WHITMORE, B. A., 1900, Iowa.
Tutor in Medical Latin. 474 Jefferson St.

SUSAN G. PARISH,
Principal, Nurses' Training School.

MARY LOUISE REHERD,
Matron of the University Hospital.

MARY STEWART SIMS,
Principal, Nurses' Training School, and Matron of the Homœopathic Hospital.

GENERAL INFORMATION

GROUNDS

The Twenty-Ninth General Assembly appropriated $50,000 for the purchase of additional grounds. Plans have been made to keep and beautify the historic Old Capitol campus as the center for the enlarged grounds which are to front the river and to be connected with the athletic field on the west, and through the newly acquired medical quadrangle, with the old park or hospital campus on the east. With fifty acres in the heart of one of themost picturesque and sanitary small cities in the United States, with possibilities of park extension across the river, the opportunities for landscape architecture equal those of the most favored seats of learning.

INCOME OF THE UNIVERSITY

The University enjoys the proceeds of the invested funds and lands originally given by the United States. The Twenty-Eighth and Twenty-Ninth General Assemblies also enlarged the general support fund of the University by permanent appropriations of $85,000 a year, making with the preceeding appropriations an income from this source for the University of $160,500. The Twenty-Ninth General Assembly continued the building tax, but increased the levy from one-tenth of a mill to one-fifth of a mill, securing annually to the University not less than $116,000. The total income for the past year, including the proceeds of the buiding tax and the tuition fees paid by students, amounts to about $425,000.

The present financial outlook is an occasion for gratitude on the part of friends of the University, and enables the regents and faculty of the University to make enlarged provisions for work over wide fields.

BUILDINGS

The University at present occupies seventeen buildings, not counting two in process of erection, beautifully situated near the business center of Iowa City. They are as follows, the order being that in which they were erected:

The Old Capitol, in which are located the administrative offices and the College of Law. This building is the old State House, the corner stone of which was laid July 4, 1840.

Hall of Engineering. The first floor and basement have been rehabilitated since the fire for temporary use, and are occupied by the Civil Engineering Department.

The Hall of Physics, furnishes quarters for the Physical Laboratories and lecture rooms.

The Clinton Street Building, No. 14 North Clinton street, formerly the Homœopathic Hospital, now occupied by the laboratory of the department of Physiology of the College of Medicine.

The Armory, occupied by the department of Military Science.

Medical Hall has been refitted for temporary use since the fire and contains a dissecting laboratory, and lecture rooms for the medical colleges.

Natural Science Hall, in which are located the four departments of biological science of the College of Liberal Arts, and also the Museum of Natural History.

The Hall of Chemistry, containing the laboratories of general, medical, and pharmaceutical chemistry and a large amphitheater.

Close Hall, the home of the Young Men's and Young Women's Christian Associations of the University. This building is the property of the two associations. It contains a well-equipped gymnasium, and a large auditorium, besides reading rooms, waiting rooms, parlors, committee rooms, and offices. The second floor is occupied by Literary Societies—the Zetagathian, Irving, Philomathean, Hesperian, Erodelphian, and Octave Thanet.

Dental Hall, occupied exclusively by the College of Dentistry.

The Hospital of the College of Homœopathic Medicine, affording accommodations for fifty-four patients and containing a large clinical amphitheater, dispensary, administrative office, and the library of the Homœopathic Medical College.

The Hospital of the College of Medicine, with a large amphitheater, numerous operating rooms and offices, a dispensary, and accommodations for seventy-five patients.

Three small buildings, one for the standard weights and measures of the state; a student's astronomical observatory; and a carpenter's shop.

The Hall of Liberal Arts, is three stories and a basement in height, and contains ninety-two recitation rooms, seminary rooms and offices, women's drawing room, and a general lecture room with seating capacity of 480. The style of the building harmonizes with that of the Old Capitol. It is built of Bedford stone, fire-proofed throughout, and is lighted with gas and electricity and equipped with a complete heating and ventilating system.

It is occupied by the departments of English, French, German, Latin, Greek, History, Sociology, Political Science, Education, Philosophy, and Mathematics, and by the General Library and the Library of the State Historical Society.

In addition to ample lecture rooms, each department has an office and a seminary room for the use of advanced students working under the professor in charge, and for the department of Philosophy there is a large and well-equipped psychological laboratory.

A modern central station for heat, light, and power, recently completed, has added to the equipment of the engineering and electrical department.

Two buildings in the new medical quadrangle will be completed in the summer of 1903. Both will be of Bedford stone with granite foundations, and fire proof. They will have the best modern equipment for the laboratories of bacteriology, pathology, histology, physiology, and anatomy.

THE LIBRARIES

The University Library contains about 65,000 volumes, not including a large number of pamphlets, and consists of

the libraries of the colleges of Liberal Arts, Law, Medicine, Homœopathic Medicine, Dentistry, and Pharmacy. These libraries are shelved in their several college buildings, where they are accessible to any one desiring to use them.

Within the last few years the library has been enriched by several large and valuable gifts, viz:

1. The Hammond Library of civil and constitutional law.
2. The Talbot Library, containing a valuable collection of scientific works.
3. A fine collection of philological periodicals given by the German citizens of the state.

The University receives, by purchase and exchange, 535 periodicals and scientific society transactions.

Members of the faculties and other officers of the University may draw books from the library. To all other persons it is a reference library, and as such is open to any one.

The general reading room occupies the south end of the third floor of the Hall of Liberal Arts, and is open daily, except Sunday and legal holidays, from 8:00 A. M. to 10:00 P. M..

The students of the University also have access to the Library of the State Historical Society, which is located on the same floor as the general reading room.

The library of the College of Law, numbering about 10,000 volumes, occupies the former Senate chamber on the second floor of the Old Capitol. It contains a full series of the reports of the Supreme Court of the United States and of the courts of last resort of thirty-six states, including all the series of reports most frequently referred to; also the American Decisions; American Reports; American State Reports; Lawyer's Reports Annotated; English Ruling Cases; a collection of English Reports, which, with additions lately made, is almost complete; full series of the Reporter System; and a large collection of the latest and best law text-books.

A valuable collection of 1,200 volumes relating principally to the civil law and the history of the common law, presented to the University by Mrs. Hammond, widow of William G. Hammond, LL. D., the first Chancellor of the

College of Law, is kept in the law library as a separate collection for the use of the students of the College and others interested in such subjects. These books are kept in special cases, under the charge of the law librarian, and are accessible upon request.

The reading room of the law library is open from 8:00 A. M. to 12 M., from 1:30 to 5:30 P. M. and from 7:00 to 9:00 P. M. of each day except Saturday; and also during the forenoon of Saturday.

The Library of the College of Medicine, which was destroyed by fire in 1900, has been replaced, and comprises the latest editions of standard works, as well as many volumes of periodicals relating to the various branches of medical science.

The College of Homœopathic Medicine possesses a valuable professional library, located in the Homœopathic Hospital.

The departmental libraries are rich in literature of interest to the advanced student.

THE LIBRARY OF THE STATE HISTORICAL SOCIETY OF IOWA

The library of the State Historical Society, located in the Hall of Liberal Arts of the University, is open for the use of University students. This valuable collection of historical documents is rapidly growing, The society issues its own publications regularly and has on its exchange list the publications of similar societies in the United States as well as a large number of foreign publications and the publications of leading universities both at home and abroad. During the year the Society has established the Iowa Journal of History and Politics.

MATERIAL EQUIPMENT

LABORATORIES

THE PSYCHOLOGICAL LABORATORY

The new psychological laboratory, completed in September, 1901, occupies a part of the second floor of the Hall of Liberal Arts. It includes, in common with the department of philosophy, the following rooms: Two lecture rooms, a library and seminary room, an apparatus room, a workshop, an observing room, a recording room, three general laboratory rooms, and two offices. Owing to the present crowded condition of the Hall of Liberal Arts, resulting from the recent fires, two of the above rooms are temporarily occupied by another department.

The rooms are large and well lighted, supplied with gas and electric light, and have special provisions for darkening. They are heated and ventilated by a system of indirect radiation, and supplied with water where needed. The rooms in the suite are connected by a system of concealed wires radiating from a central switchboard which has connections with a battery closet and the power house. Battery currents and the direct dynamo current may be drawn from several terminals in each room and any two or more rooms may be connected for experimental purposes by means of this system.

The observing room is practically sound-proof, light-proof, and jar-proof. It is a room 12x14, with an anteroom 4x14, built inside of another room which rests upon a special foundation and has no solid contact with any other part of the building. It is lined, carpeted, and furnished in black, and is supplied with gas, electric light, switchboard connections, and a special heating and ventilating system. The main room is entered through four tight-

fitting doors and when these are closed all communication with the outside takes place through telephone and electric recording instruments. In the typical experiments the observer is left alone in this room where the conditions of the experiment can be controlled, while the experimenter manipulates the instruments in and from the recording room.

The workshop is provided with bench, lathe, motor, tools, material for apparatus, drawing materials, mimeograph, etc.

The library and seminary room contains the entire departmental library, including the subjects of philosophy, psychology, logic, ethics, and aesthetics, and is open all day for the use of students.

The laboratory is equipped with a superior collection of apparatus, illustrative material, supplies, and conveniences for use in instruction and investigation in psychology. The general equipment of the laboratory is designed to fit the plan of instruction, according to which the student in psychology may, the first year, attend a course of lectures in which a rich collection of illustrative material is used and experiments are performed before the class by the instructor. The second year, the student may himself perform a series of model experiments, and for the third and following years he may engage in the investigation of original problems. Accordingly the equipment falls into three classes: (1) apparatus, charts, and other material for use in class demonstration for the first year in general psychology, (2) a complete set of apparatus for standard exercises which constitute the laboratory course for the second year, and (3) apparatus and the varied means employed in the research work, for special tests, and for advanced demonstration experiments.

LABORATORIES OF ANIMAL MORPHOLOGY AND PHYSIOLOGY

The laboratories for animal morphology and physiology occupy the west half of the first floor of the Natural Science Hall, together with a portion of the basement. They are snpplied with water and gas throughout, and are lighted by twenty windows.

The laboratory for the elementary courses receives light from the north. It is furnished with heavy oak, slate-topped tables, particularly adapted to the anatomical and microscopical requirements of the work. The tables will accommodate thirty students at one time.

The equipment of this laboratory includes thirty compound microscopes, as many dissecting microscopes, the requisite accessory optical apparatus, a series of over nine thousand microscopical slides, a large number of anatomical preparations, charts, and models, physiological equipment, and the numerous pieces of minor apparatus, glassware, etc., incident to general biological work.

The laboratory for the several advanced courses is lighted from the west and south. It is furnished with tables and reagent racks designed to meet the special requirements of the work pursued here. A smaller room opening from the main one supplies the conditions desired for apparatus of constant temperature. The equipment of this laboratory embraces special microscopes, sliding microtomes of approved pattern, two Minot automatic microtomes for serial sectioning, a large Lillie water bath for paraffin imbedding, a laboratory incubator for work in embryology, a warm chamber of ample size, a complete stock of biological reagents, sets of bottles for each student, a large assortment of glassware, a series of charts, and ninety-three wax models by Ziegler illustrating the embryology of Amphioxus, the Trout, the Frog, and the Chick.

Opening from the main laboratories are smaller rooms available for those pursuing special lines of investigation. The basement laboratory is utilized for aquaria, anatomical tanks, animal cages, and appliances for various lines of special work.

A reference library in English, French, and German is kept in the laboratories, and is accessible at all times during working hours. A subject index on the card catalogue system renders the literature more readily available.

ZOOLOGICAL LABORATORY

This laboratory has been newly equipped and is now able to furnish much better facilities than ever before. It

is situated on the second floor of the Natural Science Building. The main items of the equipment are the following:

1. New laboratory tables designed especially for this work. They have glazed tops of alternating black and white squares to give suitable background for dissecting or examining delicate objects in glass dishes, and drawers for the accommodation of the dissecting tools, lenses, etc. The tables are provided with Welsbach burners in sufficient number to furnish the best of light for either dissecting or microscopic work, and will accommodate twenty-seven students.

2. A high grade dissecting microscope, provided with a jointed arm and two double achromatic lenses, for each student. On the theory that the work in zoology can be done better with a good dissecting equipment than by relying too much on the compound microscope, this laboratory has been provided with the best dissecting microscopes and lenses that could be purchased.

3. Compound microscopes of good quality in sufficient numbers to furnish one to each two students are at present available, and it is confidently hoped that there will be one for each student before the beginning of the next collegiate year.

4. An Imperial Sciopticon for use in illustrating lectures. This instrument is provided with electric light, and microscope attachment.

5. A photographic camera with the usual accessories for photographic and lantern slide work, together with a convenient dark room.

6. A set of ordinary dissecting tools and a Coddington lens for each student, together with a very complete equipment in the way of dissecting pans and glassware, such as watch glasses, petrie dishes, stender dishes, embryo dishes, slides, covers, etc.

7. The very extensive zoological collections in the Museum of Natural History are at the disposal of students in this department, furnishing abundant material in many groups for advanced systematic work.

In this connection should be mentioned the departmental library of zoological works, including a complete set of the "Annals and Magazine of Natural History," most of the

"Challenger" Reports, and works of reference of various kinds covering the field of zoology in a general way, and admitting of special treatment of several groups which are particularly well represented in the Museum.

BOTANICAL LABORATORY

The laboratory is located on the second floor of Natural Science Hall, and is in direct communication with the herbarium room. It is supplied with heavy oak, slate-topped tables, furnished with drawers and cases for the instruments used in microscopic work, and is arranged to accommodate thirty students at one time. It has just been equipped with new microscopes and with all the facilities for advanced histological work.

1. Connected with the main laboratory are private laboratories for students pursuing special lines of investigation. Two of these are furnished with special microscopes, a photomicrographic camera, and apparatus for investigation in vegetable physiology.

2. A fine stereopticon with hundreds of slides furnishes the material basis for general illustration, and for Monday evening lectures. The laboratories are well lighted and in every way adapted to satisfactory work.

3. The herbarium affords a very large amount of material suitably preserved for various lines of investigation in histology, embryology, as well as in all departments of taxonomic research.

4. A fully equipped dark-room is at the disposal of students whose work in the department requires photographic illustration.

5. All the more important works of reference in botanical sciences are found as a working library in the laboratory.

LABORATORIES OF GEOLOGY, PETROLOGY, AND PALEONTOLOGY

The equipment of the department embraces:

1. The laboratory collections, including:
   - a. An extensive collection of American and European fossils, illustrating the history and development of life from the earliest geologic ages to the present time.
   - b. Several hundred mineral specimens selected and arranged to illustrate the economic geological resources of the United States, including:
     - (1). The metalliferous products, such as the various ores of gold, silver, copper, iron, etc., and their modes of occurrence.
     - (2) The non-metalliferous products, such as coal, building materials, gypsum, etc.
   - c. A collection of rock-making minerals.
   - d. A collection of rock specimens illustrating the mineralogical composition, structure, mode of occurrence, and classification of rocks.
   - e. A large number of sections of rocks, minerals, and fossils for microscopic study in connection with the work in petrology and paleontology.

2. Globes; physical maps of the continents and oceans; a series of topographical and geological maps and charts, published by the United States Geological Survey, the various state surveys, and the surveys of foreign countries; geological and physiographical models, and relief maps; more than two thousand lantern slides, covering every phase of geology which can be illustrated in this way; several hundred photographs illustrating physiographic and geologic phenomena.

3. A lithological lathe for making microscopic and other sections of rocks, minerals, and fossils.

4. A number of petrographical microscopes of the most approved design; two Joly balances for specific gravity determinations; Mohs's scale of hardness, etc.

5. A complete photographic outfit, including a large photomicrographic camera.

6. A large series of negatives from which the students make prints to illustrate their premanent notebooks.

7. Equipment for determinative mineralogy.

8. A collection of crystal models, natural crystals, and crystal sections to illustrate the work of crystallography.

9. The library of the department contains over 1,000 bound volumes and about 1,000 catalogued pamphlets. In addition to the standard works on geology and related subjects, the library contains the publications of the United States Geological Survey, the reports of the various state surveys, and a number of geological publications of foreign governments.

10. Geological phenomena illustrated within easy reach of Iowa City.

The surrounding neighborhood affords many instructive examples of phenomena of interest to the student of geology. At the same time it offers unexcelled opportunities for field work in mapping, making geological sections, tracing strata from one exposure to another, and making paleontological collections. The Pleistocene deposits are of especial interest.

The boulders of the drift afford an opportunity for a study of several types of crystalline rocks. The available material is not only sufficient to illustrate the ordinary undergraduate courses in geology, but advanced students will find enough to occupy their time with profit for a number of years.

THE LABORATORIES OF THE COLLEGES OF MEDICINE.

By the beginning of the college year these laboratories with their new equipment will be in the modern buildings in the process of erection for them. At present, the pathological and bacteriological laboratory is located on the first

floor of the Hall of Liberal Arts. It is thoroughly equipped with new microscopes of the most modern type and all apparatus necessary for carrying on every form of bacteriological research. Each student is provided with a table, a microscope, and the necessary staining reagents.

The histological laboratory, situated on the first floor of the same building, is well lighted and thoroughly equipped with microscopes and all necessary apparatus for carrying on the work. The laboratory work consists of the preparation and study of microscopic slides showing the minute structure of the different tissues and organs of the body.

Physiological and otological laboratories are now being fitted up in a thorough manner with the most modern appliances.

THE CHEMICAL LABORATORIES

A three-story brick building, 105 x 150 feet on each floor, is devoted entirely to the uses of the departments of Chemistry and Pharmacy. The lecture hall is built in amphitheater form and will accommodate nearly two hundred students, every one of whom can clearly see the lecture table and any experiment that may be performed there, even from the most distant part of the room. There is also a special lecture room for students in pharmacy. The building contains a general laboratory 100 feet in length by 27 feet in minimum breadth for the use of students in the College of Liberal Arts, and two others nearly as large for those in the Colleges of Medicine and Pharmacy; also a large laboratory for advanced students, a laboratory of determinative mineralogy, and several private laboratories which may be fitted up for various special lines of research.

There are also reading rooms containing the libraries of general and pharmaceutical chemistry, spectroscope and balance rooms, engine and dynamo rooms, dark rooms for photography, store rooms, and offices.

A storage battery and dynamo in connection with the gas engine furnish electricity to the various laboratories for electrolysis and other uses. Special facilities in the way of apparatus are provided for the study of physical chemistry.

THE PHYSICAL LABORATORY

The department of physics occupies the entire three stories of the North Building, or Hall of Physics, a plain rectangular structure 60 x 90 feet.

In the basement is the large engine and dynamo room, containing a gas engine which drives a shaft twenty feet long. To this shaft are belted the dynamos, of which there are six, varying in capacity from one to ten horsepower and representing several types. Here also is a cable switchboard, meters, lamps and other apparatus. In the battery room are some fifty accumulators, including different types. One basement room contains the shop of the department, with the usual metal working tools, including lathes, drill press, forge, and an outfit of bench tools. Another room is supplied with a cabinet-maker's bench and a few wood working tools.

On the floor above are several special laboratories, a general electrical laboratory, and offices. One room contains the special physical library and the journals taken for the department of physics. This room is also used as a seminary room. On this floor is the photometer room, containing a complete Kruess photometer.

The second floor, formerly occupied by the general library of the university, has been remodeled and adapted to the use of this department. A lecture room with a seating capacity of 175 has been fitted up with conveniences for physical demonstrations, such as facilities for darkening the room, and for projection by sunlight and various sources of artificial light. Connected with the lecture room is a commodious apparatus and preparation room. A recitation room with chairs for 35 students, the large, well lighted elementary laboratory, and a complete photographic laboratory with dark room, occupy the remainder of the space on this floor.

The laboratory is fairly well suplpied with lecture apparatus, and among the instruments of precision are many of the best and finest to be had. The equipment is especially full in mechanics, optics, and electricity. Most of the apparatus has been purchased in recent years and

has been selected with great care, and some has been constructed for particular uses in this laboratory.

It may be noted that the above account of the equipment of the Physical Laboratory includes apparatus, machinery, and shop facilities for the practical work of the course in electrical engineering. The electrical work of this course is at present carried on as a part of the work of the department of physics. The electrical equipment of the new Hall of Liberal Arts and the new heating plant has materially increased the facilities for measurements and study of electrical apparatus. The equipment is thoroughly modern and includes two large dynamos for light and power, two motors to drive fans in the heating and ventilating outfit, besides the switchboards, line construction, and other apparatus. Current from this plant is now used for lighting and power and experimental purposes in the physical laboratory. Available to the student and within easy reach are the large power stations of the local electric lighting company and the establishments of local manufacturing concerns, all furnishing examples of the best modern practice in electrical engineering.

ASTRONOMICAL OBSERVATORY

The students' Astronomical Observatory is conveniently located on the University campus. It is furnished with a five-inch equatorial telescope by Grubb of Dublin, having circles, driving clock, position micrometer, helioscope, and solar and stellar spectroscopes; a transit instrument by William Wuerdemann, of Washington; a prismatic sextant and artificial horizon by Pistor and Martins, of Berlin; clock; chronometer; chronograph, etc.

The lecture room equipment includes a fine astronomical globe, a planetarium, an excellent stereopticon and a series of several hundred lantern slides to which additions are constantly being made. Numerous charts, models and photographs furnish additional illustrative material.

The mathematical and astronomical library comprises over twelve hundred volumes, including many rare and valuable works. The periodical literature devoted to these branches of science is also well represented.

CIVIL ENGINEERING LABORATORIES AND DRAUGHTING ROOMS

The testing laboratory contains an autographic torsion tester, an automatic Reihle standard testing machine of 100,000 pounds capacity; standard abrasion cylinder for testing paving brick; grinders, lathes, and metal, stone and wood cutting saws for the preparation of specimens; Fairbanks' automatic shot-stop briquette tester of 1000 pounds capacity; briquette making machines of the S. U. I. and Sims types, using standard molds; concrete molds from 2 to 10 inches in diameter, and all necessary slabs, tanks, baths, thermometers, etc., for making complete physical tests of cements.

An auxiliary fire protection system has been installed in connection with the Hydraulic Laboratory of the Civil Engineering Department. For this purpose a 500 gallon per minute Worthington Duplex Fire Pump is connected in series with the fire system of Iowa City, and discharges in a high pressure main running to hydrants in the campus. This arrangement permits of experimentation on large quantities as well as on high pressures of water. The Hydraulic Laboratory equipment proper includes tanks with standard orifices, tubes and weirs for free and submerged flow, hook gauges, stop watch, water-meters of various kinds, including direct, inferential and venturi, scales, impulse wheels, ejectors, pressure gauges, and other necessary appliances for demonstrating hydraulic principles; also a Price's pneumatic current meter for field gaugings.

The draughting rooms are at present located on the first floor of the Civil Engineering building and are well lighted, and equipped with models for drawing and descriptive geometry, and other necessary appliances.

The department is provided with a field equipment ample to permit full and complete practice in the different branches of plane surveying; this equipment consists of a vernier compass, a railroad compass, a solar compass, levels and transits, with stadia, gradienter, and Saegmuellar solar attachment; also a plane table of the latest approved form, with best telescopic alidade and all necessary attachments, together with all the rods, flags, chains,

tapes, etc., that are necessary to equip fully the various classes and divisions in surveying.

The engineering library consists of over 700 volumes of the standard works on the various engineering subjects. These books are selected from and are a part of the general library, but are arranged in a convenient room adjacent to the drawing rooms, and are freely used by the engineering students. Among the engineering journals are: *Engineering News*, *Engineering* (London), *Engineering Record*, *Municipal Engineer*, *Engineering Magazine*, *Yale Scientific Monthly*, *Engineering and Mining Journal*, *Street Railway Review*, *Railway and Engineering Review*, *Canadian Engineer*, *Compressed Air*, *American Engineer*, *American Architect*, *Journal Western Engineering Society*, *Science and Industry*, *Brick*, *The Clay Worker*, *Technology Review*, *Technograph*, *Journal of the Franklin Institute*, and others, many being exchanges of *The Transit*. A catalogue of the books in this library has been printed and will be sent on application.

Students in any engineering or science course are eligible for membership in the Engineering Society. This Society meets each week, and papers upon engineering or scientific subjects are prepared and read by the students.

An engineering journal (*The Transit*) is published annually by the University. It is edited by a committee of the Engineering Society, and contains the results of original research in engineering and scientific problems by undergraduate students, alumni, and others.

NEW ENGINEERING EQUIPMENT

Besides the construction of the auxiliary fire protection system in connection with the Hydraulic Laboratory, there has also been installed a machine shop, containing a planer, milling machine, shaper, six lathes, the largest having a normal swing of 18 inches, drill press, grinders, polishing head, metal and stone cutting band saws, circular saw, and a full complement of finer tools and instruments, vernier calipers, micrometer gauges, scales, etc.

During the year 1902-1903 the engineering equipment of the University was very materially increased. It is con-

templated to equip the present Armory for the purposes of laboratories, shops, and lecture and recitation rooms to supplement the space now occupied in the Civil Engineering building and the ground, first, and second floors of the Hall of Physics. High pressure steam for power, to supplement the day current from the dynamos at the new heating and power plant is now available at all times from the high pressure main of the new heating system.

NATURAL HISTORY COLLECTIONS

GEOLOGICAL COLLECTIONS

1. A large series of building stones, fossils, earths, etc., collected chiefly in the prosecution of the state geological surveys between the years 1856 and 1870. These collections are constantly increasing by contributions from various sources.

2. The Calvin collection of American and European fossils.

3. Mineralogical collections embracing the metalliferous, non-metalliferous, and rock-making minerals.

4. The petrological collection includes several hundred rock-specimens illustrating the various types of igneous and sedimentary rocks, their mineralogical composition and structural features.

5. A collection of cretaceous cycads from the Dakota sandstone of the Black Hills.

6. Recent extensive collections illustrating the cretaceous fauna and economic geology of the Black Hills.

7. A collection illustrating general economic geology.

A beautifully preserved skeleton of a mosasaur (*Platecarpus*) has lately been added to the geological collections through the generosity of the Davenport Alumni Association.

During the year the collections have been added to both by purchase and gift as well as by the efforts of the members of the department. Among the additions are: a fine specimen of Ichthyodectes, (a Cretaceous fish) from the Niobrara of Kansas, (purchased); a specimen of Daemonelix, a number of sand crystals from Devil's Hill, S. D., and

a mass of calc sinter showing impressions of Chara and other plants, from the Black Hills, S. D., all presented by Prof. E. H. Barbour of the University of Nebraska; a collection of minerals from Joplin, Mo., presented by Mr. F. W. Paschal; collection of rock specimens from the vicinity of Boston, Mass., presented by Mr. G. H. Grant, Harvard University; collection of rock specimens from the vicinity of Leadville, Col., presented by Mr. G. H. Garry, Michigan School of Mines; a specimen of the rare mineral Vandiestite, presented by E. C. van Diest, San Luis, Col.; collections of mineral and rock specimens made by Professor Calvin in Colorado, and by Professors Calvin and George in British Columbia.

HERBARIUM

The herbarium is located in two rooms on the second floor of the Hall of Science. It contains:

1. A very large and constantly increasing collection of fungi, both parasitic and saprophytic, from all parts of North and Central America. To be classed here is also a large collection of the myxomycetes from all parts of the world.
2. A large collection of ferns and mosses from both hemispheres, including an especially complete series from tropical America.
3. A collection of lichens, representing most of the species of the United States.
4. A collection of many thousand flowering plants, representing very fully the flora of North America, and especially rich in Central American and European forms. The number of plants in the herbarium exceeds 200,000.
5. A collection of seeds and dry fruits, including cones, representing the flora of North America chiefly but containing also much material from the tropics.
6. A collection of the principal woods of the United States.
7. A collection of economic plant products, including plant fibers, *materia medica*, etc.

The herbarium collections, thanks to friends and collectors in various parts of the world, are steadily

increasing in extent and value. It is hoped that private collectors will hereafter as heretofore find the University a proper place for the deposit and care of collections of plants.

Botanical field work has been conducted by representatives in the department in various parts of the state and country. During the past year work has been directed to the collection of the State flora chiefly, with special reference to matters of distribution. Excursions have also been made to California, Mexico, and Arizona.

Special thanks for herbarium material are due to J. M. Holzinger, J. E. Cameron, Hattie M. Clearman, Lucy M. Cavanagh, C. W. Irish, Fred Reppert, L. H. Pammel, A. F. Ewers, R. I. Cratty, Maud Brown, Harold Wingate, H. M. Ivins, F. J. Seaver, C. I. Lambert.

A constantly increasing library of systematic botanical literature is available to students carrying on special investigations in the herbarium.

MUSEUM OF NATURAL HISTORY

The Museum of Natural History has attained a rank second to none in the universities of the West and is daily becoming more valuable through donations of material by friends of the University.

By the generosity of the collector the Hornaday collection of mammals and birds has become the property of the University. This collection contains many rare forms of mammals and birds, and is particularly rich in typical exotic forms from India and Australia.

Mr. D. H. Talbot, of Sioux City, has donated to the University his extensive collection of natural history specimens and minerals. This collection contains many thousand specimens, being especially rich in mammals, birds, and anatomical preparations.

During the last fifteen years expeditions for zoological explorations in the interest of the University have visited the following regions; Bahama Islands, Bay of Fundy, Rocky Mountain region, Pacific coast, Alaska, mountains of Tennessee, the Winnipeg country, Lake Athabasca, Great Slave Lake, the Arctic coast, Siberia, Cuba, Florida

Keys, Atlantic coast, British West Indies, the Bay of Naples, and the Hawaiian Islands.

More than half of the natural history collection is included in the *reserve series*, which has been arranged and labeled with the intention of making the material of the utmost practical use to students of natural history.

A library of reference for the use of students of zoology is placed on the museum floor, and a free use of all the material in the various collections is encouraged, for which purpose a cheerful and convenient study room has been provided for the use of students and specialists.

ZOOLOGICAL COLLECTIONS

1. MAMMALS—A large series of mounted specimens is now on exhibition, the great majority being rare and valuable foreign species, including a series of marsupials which surpasses anything of the kind west of the Alleghanies.

Besides the Hornaday collection, the museum contains a large number of native mammals, about forty specimens being from the Pacific coast. A good series of the larger mammals of North America has been secured through the kindness of Mr. D. H. Talbot, and the efforts of Dr. Frank Russell, who returned from the far north with an exceptionally fine series of the larger mammals of that region, including five good specimens of the musk ox.

2. BIRDS—The ornithological material in the museum now embraces about 11,000 specimens, about 1,000 of which are exhibited in the mounted series, the remainder being included in the study series for the use of students and specialists.

Besides a large collection of native birds, containing nearly all the species found in Iowa, the following collections are noteworthy:

The Hornaday collection of birds, containing one hundred and twenty-five specimens, nearly all of which are exotics, and many, such as the ostrich and the emu, of great value.

The Bond collection of birds of Wyoming, donated, together with a large collection of Iowa birds, by Mr. Frank Bond of Cheyenne, Wyoming.

The Harrison collection of British game birds and birds of prey, a large and valuable series, donated by John Harrison, Esq., of England.

The Talbot collection of American birds, embracing thousands of specimens, mostly from the Mississippi valley.

A collection of 500 birds from the N. W. Provinces of British America, made by the Curator, Dr. Frank Russell, and Professor A. G. Smith.

A collection of about 600 specimens of birds from the Winnipeg country, Great Slave Lake, Athabasca Lake, the Mackenzie River, and the Arctic coast, made by Dr. Frank Russell.

A small but valuable collection of birds of the Hawaiian Islands, collected by the Curator in 1902.

The Curator has donated his study series of over 800 bird skins from Central America and the Bahama Islands.

3. REPTILES—The alcoholic collection of reptiles has received many important additions, among which may be mentioned a number of specimens from India, donated by Rev. A. Loughridge, and many native specimens presented by students. Ex-Regent B. F. Osborn has donated his large collection of alcoholic specimens, which consists principally of reptiles, thus nearly doubling the series of these forms.

4. FISHES—Professor B. Shimek has presented the Museum with his entire collection of fresh water fishes, of which the Museum now has seven hundred specimens, besides a number of marine forms.

A collection of 135 species of the fresh-water fishes of Central and Western North America has been donated to the University by the United States Fish Commission.

5. INSECTS—Assistant Professor Wickham is now engaged in assorting a large series of the coleoptera and lepidoptera of North America which he has generously donated. All of the foreign coleoptera in his large collection are now the property of the Museum.

6. MARINE INVERTEBRATES—A collection consisting of several thousand specimens of crustaceans, mollusks, star fishes, corals, sponges, etc., has been supplemented by a valuable series consisting of several hundred alcoholic

specimens, many of which are the gift of the United States Fish Commission.

The alcoholic collection has been enlarged by marine forms collected during two expeditions to the Bahamas, Cuba, and the Florida Keys, and thousands of specimens have been added by collections made in the Bay of Fundy by Professors Calvin and Nutting.

A carload of marine specimens was secured by the Bahama expedition in 1893. This collection contains a large number of deep-water forms, thus giving the University special advantages in the matter of marine materials for exhibition and study.

A valuable series of marine forms of the more fragile and delicate kinds, such as medusæ, sea-anemones, etc., has been secured from the *Stazione Zoologica* at Naples, where the most superb preparations of these beautiful forms are made. These are supplemented by a number of gelatine models of medusæ, hydroids, etc., imported from Germany.

The museum is to receive one entire series of the marine forms collected by the U. S. S. "Albatross" during her Hawaiian cruise of 1902.

7. TERRESTRIAL AND FRESH-WATER MOLLUSCA—The Shimek collection of land and fresh-water shells, embracing nearly all the species known to occur in Iowa, together with many exotic species.

OSTEOLOGICAL PREPARATIONS — A series of mounted skulls and skeletons, illustrating the osteology of typical series of vertebrates, is of the greatest value to students of comparative anatomy and zoology. The skeleton of a large whale (*Balaena Biscayensis*) was secured in 1898, and a fine specimen of Stellei's sea lion in 1899.

ETHNOLOGICAL COLLECTIONS

There is considerable ethnological material in the Museum, illustrating the handiwork of the Mound Builders, Pueblo Indians, Zunis, Moquis, Acomas, Mojaves, Crees, Dog Ribs, Metis, Kosmolliks, Piegans, Tchukchees, and Navajos, together with skulls and other remains of the ancient and modern inhabitants of America.

Mr. D. H. Talbot of Sioux City has added very largely to this department of the Museum. Dr. Russell has beeu active in securing ethnological specimens illustrating the life and manufactures of the Crees, of other northern tribes of Indians, and of the Esquimaux.

Mr. H. M. Griffith of the Fifty-first Iowa Volunteers has brought from Luzon a valuable collection which he has generously donated to the Museum.

A small collection illustrating the Ethnology of the Hawaiian Islands was secured by the Curator in 1902.

THE EDUCATIONAL MUSEUM

A good beginning has been made in the collection of a pedagogical museum, in which it is designed to have material representing all phases of model school room instruction, and also materials representing educational practices of the past.

Any one desiring to assist in this enterprise may send such contributions as old text books, books of collateral literature, models of work executed by pupils, including examination papers, written digests, laboratory notes, paper, drawings, work in color, designs in wood, metal, clay, or paste board, photographs, plans, and descriptions of school buildings. All objects should be sent to "The Educational Museum," and all correspondence addressed to the Professor of Education. Prompt acknowledgment will be made of all favors received.

MUSEUM OF SCULPTURE CASTS

In connection with the department of Classical Archæology a museum of plaster casts of Greek and Roman sculpture has been established. Full casts have been obtained of the Venus from Melos, and of four other well known statues; a representative series of reliefs illustrate the remains of the art of Phidias; the collection also includes several busts, three from statues of the Greek gods, and others from early portraits of Greek authors. The class graduating from the College of Liberal Arts in 1901 added to the collection a cast of the statue of Sophocles, which is preserved in the Lateran Museum at Rome; this cast is exhibited in the main hall of the Hall of Liberal Arts.

ITEMS OF GENERAL INTEREST

UNIVERSITY PUBLICATIONS

LEARNED BULLETINS

Natural History Bulletin—The laboratories of natural history inaugurated in 1888 the publication of bulletins for the purpose of preserving a record of the work prosecuted along the lines of botany, geology, and zoology. Four volumes have thus far appeared in sixteen numbers, and the fifth volume is in process of publication. The numbers have a large circulation and are sent *gratis* to all correspondents from whom the University receives an equivalent, either in publications or in material. To others the price is 50 cents a number.

The Transit is an engineering journal published annually by the University. It is edited by a committee of the Engineering Society, and contains the results of original research in engineering problems by alumni and undergraduate students. Seven volumes have appeared, the first two containing two numbers each.

The Law Bulletin is published at irregular intervals and has been issued for ten years past. It is devoted to the discussion of legal topics taken up in the College of Law.

The Bulletin of the Homœopathic Medical College has been published since 1895. Eight numbers have appeared, the last being No. 2 of Vol. II.

The University of Iowa Studies in Psychology is a biennial publication devoted to experimental psychology. It was begun in 1897. Three volumes have been published.

The State University of Iowa Studies in Sociology, Economics, Politics, and History—Volumes I and II of this series, containing respectively 296 and 150 pages, have already appeared and will be followed by others.

Provision has been made for the publication of bulletins

of Physical Science, Education, and Linguistic Science.

In ordering any of the above publications address the Secretary of the University.

POPULAR BULLETINS

By authority of the Board of Regents separate announcements of the following University organizations will be sent gratuitously, postage paid, to all persons who apply for them: Graduate College; College of Liberal Arts, including Engineering; of Law; of Medicine; of Homœoapthic Medicine; of Dentistry; of Pharmacy; Iowa School of Political and Social Science and of Commerce; the Summer Session; the Medical and Surgical Clinics; the Hospitals; and Nurses' Training Schools. In calling for announcements please state the organization or subject concerning which you desire information. The annual calendar of the University consists of the above announcements with the roster of the University staff of administration and instruction, and catalogue of all students. It is for exchange with other institutions and for the General Assembly. Otherwise it may be had only upon special request and payment of postage.

The University News-Bulletin is published monthly during the college year to disseminate to the alumni, press, and people of the state, items of interest.

STUDENT PUBLICATIONS

The Daily Iowan.

The Hawkeye—A University annual published by the junior class.

The Middletonian—Published twice a year by the students of the College of Medicine.

LITERARY AND SCIENTIFIC SOCIETIES

The literary and scientific societies maintained by the faculty and students of the University afford an important means of general culture, scientific research, and literary and forensic training, and thus form a valuable element as well as an attractive feature in University life.

Of those conducted by the faculty the Baconian has for its object discussion of scientific questions; the Graduate Club is devoted to the interests of the Graduate College; the Political Science Club discusses questions in history, politics, economics, law, education, and ethics; the Whitney Society is devoted to the field of language and literature and the methods of teaching these subjects; the Greek Club consists of instructors and graduate students working in Greek philology; the English Club is an organization of members of the department of English and graduate students in English; the Edda is devoted to the interests of Scandinavian languages and literature; the Philosophical Club meets monthly for the discussion of problems in philosophy, psychology, logic, ethics, and æsthetics; the Cercle Français has social gatherings for practice in colloquial French, and at its meetings papers are read in English or in French.

The Phi Beta Kappa Society elects to membership, on the basis of high scholarship, a certain nnmber from the graduating class who have completed the classical or philosophical course.

The Sigma Xi is organized to encourage original research in science, and elects to membership from the senior class a limited number of persons who give promise of becoming investigators in some department of science.

The Engineering Society, the Hammond Law Senate, the Forum, the Middletonian Society, the Hahnemannian Society, and the E. L. B. Club, are organizations of students in the professional colleges.

Among the purely literary societies are the Tabard, Polygon, and Ivy Lane. The Irving Institnte, the Zetagathian Society, the Philomathean Society for young men; and the Hesperian Society, the Erodelphian Society, and the Octave Thanet Society for young women, hold weekly meetings for improvement in debate, oratory, writing, and declamation.

MUSICAL ORGANIZATIONS

To meet a very general demand for some opportunity to study the larger and more important compositions, an Oratorio Society has been organized. The society has given

the oratorio of *St. Paul*, by Mendelssohn, with a large orchestra, and proposes this year to give the *Elijah*. Membership fees are one dollar for the season.

The Military Band, with occasional volunteer student musical organizations, helps to cultivate an interest in music in the University.

PUBLIC LECTURES

The Regents encourage the visits of distinguished scholars, specialists and men in public affairs to give addresses, under the title of "Public Lectures," open to all the University. Thus the students have the latest information as to what is current in the world of letters, science and art, and public affairs.

UNIVERSITY LECTURE COURSE

For the coming year 1903–1904 there will be a University Lecture Course of a popular character. The lectures for the past year under this course will be found on page ten.

THE ORATORICAL LEAGUE

This association is made up of members of the Zetagathian, Irving, and Philomathean Societies, and is a member of the Northern Oratorial League, consisting of Oberlin College, Northwestern University, and the Universities of Wisconsin, Michigan, Chicago, and Iowa.

THE DEBATING LEAGUE

This organization, composed of the Zetagathian and Irving Societies, carries on systematic training in debating through private practice and public contests. It has had public debates with the Universities of Chicago, Minnesota, and Wisconsin, and will meet with the two latter this year.

CHRISTIAN ASSOCIATIONS

The Young Men's and Young Women's Christian Associations are the center of the religious life of the University and active factors in all forms of moral and

Christian work properly within the scope of such organizations. All students of good moral character are invited to membership either active or associate. Through the exertions of these associations Close Hall has been erected, mainly from funds contributed by the faculty, students, and alumni of the University, and the citizens of Iowa City. It is a spacious and convenient building, containing a large assembly hall, gymnasium, reading rooms, reception rooms, and bath rooms. It is extensively used for the meeting of the associations, as well as for the social, literary, and class gatherings of the students.

Through the generosity of Hon. T. S. Parvin the social room of the Y. W. C. A. has been finely fitted out with furniture, cabinet, and pictures as a memorial to his wife and daughter. A similar room for the Y. M. C. A. has been suitably furnished by Mr. W. D. Cannon, Jr., of Iowa City.

The Associations strive to be useful to all students in every feasible way. Members meet new students at the trains, aid them in securing suitable rooms and boarding places, hold receptions at the opening of the year and on various occasions, maintain an employment bureau, and issue for free distribution a student's hand-book containing information of interest and value to the whole student body. The General Secretary is glad to be helpful to students on all occasions.

Churches not affiliated with the Y. M. and Y. W. C. A. have special societies for their students.

MEANS OF MORAL AND RELIGIOUS CULTURE

Besides the opportunities offered by the Christian Associations and the positive influence exerted by them, the churches of the city, in which the members of the faculty are a large factor, take a deep interest in the students of the University and heartily welcome them to their public services and to a share in their religious activities and social life. The churches of the city are the Baptist, Christian, Congregational, German and English Lutheran, Methodist Episcopal, Presbyterian, Protestant Episcopal, Roman Catholic, Unitarian, and Church of God. This

year, in lieu of chapel exercises suspended after the burning of the old chapel, University assemblies have been established. These assemblies, less formal than the occasional convocations, are held weekly and although the attendance has been voluntary, they have been crowded. Thus the purpose of cultivating the general religious, moral, and social spirit of the University, is being satisfactorily fulfilled.

STUDENTS AND THE CIVIL AUTHORITIES

The relations of students to all laws and to city ordinances is precisely the same as that of other residents of the city. The University grounds are as completely under the jurisdiction of the civi authorities as any other part of the city.

HOSPITALS

The two hospitals connected with the University afford the best care and treatment for students seriously ill. Provision for free beds for students is commended to the attention of generous friends of the University.

THE DEAN OF WOMEN

Special provision is made for the comfort and welfare of the young women of the University by the appointment of a Dean of Women, who is always ready to help or advise any woman student who may need such assistance. She will recommend boarding and lodging places so far as she is able, see that students who are ill while away from home are put under proper care, assist, as far as possible, young women who wish to earn their way through college, correspond with parents and guardians who desire to make inquiries regarding their daughters or wards, take an interest in the women's organizations and be ready to make such suggestions as may seem to her to be for the good of all.

APPROVED HOMES FOR YOUNG WOMEN

A list of homes for young women in which there are certain reasonable house rules as to hours, company, etc., may be had upon application to the Dean of Women. This list

will be made up after careful inspection and will be revised whenever necessary.

PHYSICAL TRAINING AND ATHLETICS

The University authorities encourage physical training as acquired in the gymnasium, in military training and in the exercises and sports on the athletic field, but only in such amount and of such character as is compatible with the higher objects of the University. Intercollegiate contests are allowed and are held with the leading colleges and Universities of the Middle West, but under conditions as to membership, organization of teams, and leave of absence which are determined by the Athletic Board.

The above named Athletic Board consists of five students, five members of the faculty, and two members from the alumni of the University. The general control and supervision of all athletics are in the hands of this Board.

The University is a member of the "College Conference," comprising the Universities of Chicago, Illinois, Indiana, Iowa, Michigan, Minnesota, and Wisconsin, together with the Northwestern and Purdue Universities. The Athletic Board requires a strict compliance with the "Conference Rules," a copy of which appears in the Announcement of the College of Liberal Arts.

The athletic field contains about ten acres and is in the immediate vicinity of the University grounds. It affords room for a two-fifths mile running track, a football gridiron, and a base ball diamond entirely separate from one another.

In connection with Close Hall is a small gymnasium, equipped with suitable apparatus, lockers, baths, etc. This is under the direction of competent instructors, and classes are organized for young men. A small special gymnasium for women has been fitted up on the ground floor of the Hall of Liberal Arts, and an expert instructor provided.

EXPENSES

There are no dormitories and no commons connected with the University. Boarding and lodging in private houses can be obtained for from $3 to $5 a week. Clubs are also formed

in which the cost of living is from $1.50 to $2.50 a week. Room rent varies from 50 cents to $1.50 a week for each student. Approved houses for women named upon application to the Dean of Women.

Tuition is free in the Graduate College. In the College of Liberal Arts it is $25 per annum, payable $15 at the beginning of the first semester and $10.00 at the beginning of the second semester. Tuition may be remitted in the College of Liberal Arts in the case of students who bring a certificate signed by three county officers to the effect that the applicant is in pecuniary need and is deserving of assistance. Blank forms for such certificates may be obtained by addressing the President of the University.

For students in the combined courses the fees are $25 a year until the work in the professional colleges begins. Then students in the combined courses in Liberal Arts and Law, or Medicine, or Homœopathic Medicine pay $75 a year.

Each candidate for graduation will be required to pay a fee of $5.

A fee of $10 is required of all candidates for the Master's degree, for the degree of Civil Engineer, or for the degree of Doctor of Philosophy.

Ample facilities are afforded in the city for instruction in bookkeeping, stenography, and typewriting, in studies preparatory to the University, and in music.

SELF-SUPPORT

The Y. M. C. A. and Y. W. C. A. conduct a free labor bureau, which is at the service of students. Iowa City is a town of 8,000 inhabitants, whose citizens are friendly to the University and take pleasure in affording to deserving students the opportunity to earn their necessary expenses. It rarely happens that the student who needs it fails to secure steady employment of some kind. During the past year the demand for student help has been greater than the supply.

A. WHITNEY CARR FREE SCHOLARSHIPS

Mr. A. Whitney Carr, of Jordan, N. Y., believing that education in the higher institutions of learning should be as free to every comer as it is in the common schools, and

desiring to contribute as far as possible to this end, has generously donated what is known as "The A. Whitney Carr Free Scholarship Fund," for the creation of free scholarships for the benefit of poor and worthy young men and women who are unable to educate themselves without aid, the interest alone to be used for this purpose, the principal to be kept intact.

In accordance with the broad and generous wish of the founder, the A. Whitney Carr scholarships will be granted, so far as the fund will allow, to all applicants who are poor and worthy in respect to character and intellectual ability, without regard to sex, race, or color.

Scholarships apply to all the years of the college course; are awarded annually; and are liable to be revoked at any time if the recipients are inefficient, or found not to be worthy or justly entitled to them.

The value of each scholarship is at least $ for each of the four years of the college course. The value will be realized by students in having their tuition free, the tuition of persons receiving awards being paid from the scholarship fund.

In case the number of scholarships awarded does not exhaust the income of the fund, holders of scholarships who are crippled or are physically unable to earn the means to pay expenses other than tuition, and are without help from parents or friends, may receive additional assistance at the discretion of those having the disposal of the fund; but this additional assistance is not to exceed $100 a year, save in cases of extreme disablement and destitution, when it may reach the amount of $150 a year.

Scholarships will not be granted to applicants addicted to the use of tobacco or intoxicating liquors.

Scholarships will be awarded by the President of the University and a committee of the faculty of the College of Liberal Arts on the basis prescribed by the founder. A candidate for assistance from this fund must have his application endorsed by the Principal of the preparatory school from which he is accredited to the University, and by at least one other person of prominence familiar with the character and financial circumstances of the applicant.

PRIZES

PICKARD PRIZE—A prize of $20 was offered last year by Dr. J. L. Pickard for the encouragement of extempore speaking to the student in Political Science who was awarded first rank in competitive extemporary debate. A prize of the same value is again offered for this year. The competitive debate will take place early in June.

LOWDEN PRIZES—Frank O. Lowden, Esq., of the class of 1885, offers prizes of the value of $25 each for excellence in Latin, in Greek, in Botany, and in Geology, and $50 in Mathematics.

MAYER PRIZE—Mr. Max Mayer of Iowa City has established a prize of the annual value of $25 for excellence in athletics. This prize is open to students of all colleges of the University.

THE LOCAL ALUMNI ASSOCIATION PRIZE—An annual prize of free tuition, $25, is offered to the freshman from Johnson county who passes the best special examination set for this purpose.

LARRABEE PRIZES—Mrs. William Larrabee offers three prizes of $25 each for excellence in scholarship, in Botany, in Geology, and in Zoology.

OLD ENGLISH PRIZE—The Early English Text Society of London offers one of its texts as a prize for excellence in Old English.

A citizen of Iowa City offers a copy of Gray's Field Manual for the best work in the Botany of the spring term.

Mr. Lowden has given $3,000 as an endowment to the Northern Oratorial League. As this University is a member of the League, students are invited to compete and share in the benefits of this endowment.

THE COLLEGE OF LIBERAL ARTS

COLLEGE OF LIBERAL ARTS

FACULTY AND INSTRUCTORS

GEORGE EDWIN MACLEAN, B. A., 1871; M. A., 1874, Williams; B. D., 1877, Yale; PH. D., 1883, Leipzig; LL. D., 1895, Williams.
President, 1899.* 603 College St. (2 Old Capitol)

AMOS NOYES CURRIER, B. A., 1856; M. A., 1859, Dartmouth; LL. D., 1893, Des Moines.
Professor and Head of the Department of Latin Language and Literature, and Dean of the College of Liberal Arts, 1867.
32 Bloomington St. (108 Liberal Arts)

SAMUEL CALVIN, M. A., 1874, Cornell College; F. G. S. A., PH. D., 1888, Lenox.
Professor and Head of the Department of Geology, 1874.
522 N. Clinton St. (Science Hall, first floor)

THOMAS HUSTON MACBRIDE, B. A., 1869; M. A., 1873, Monmouth; PH. D., 1895, Lenox.
Professor and Head of the Department of Botany, 1878.
728 Washington St. (Science Hall, second floor)

LAUNCELOT WINCHESTER ANDREWS, B. PH., 1875, Yale; M. A., PH. D., 1882, Goettingen.
Professor and Head of the Department of Chemistry, 1885.
251 S. Johnson St. (Chemical Laboratory)

**GEORGE THOMAS WHITE PATRICK, B. A., 1878, Iowa; B. D., 1885, Yale; PH. D., 1888, Johns Hopkins.
Professor and Head of the Department of Philosophy, 1887.
704 N. Dubuque St. (209 Liberal Arts)

CHARLES BUNDY WILSON, B. A., 1884; M. A., 1886, Cornell University.
Professor and Head of the Department of German Language and Literature, 1888. 311 N. Capitol St. (101 Liberal Arts)

ANDREW ANDERSON VEBLEN, B. A., 1877; M. A., 1880. Carleton College.
Professor and Head of the Department of Physics, and Secretary of the Faculty of the College of Liberal Arts, 1883.
707 N. Dubuque St. (Hall of Physics)

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*Date following title indicates year of appointment to service in the University. The names are arranged in groups according to seniority of appointment to present rank.
**Absent on leave.

LAENAS GIFFORD WELD, B. S., 1883; M. A., 1885, Iowa.
Professor of Mathematics and Head of the Department, Dean of the Graduate College, and Dean of the Summer Session, 1886.
612 N. Dubuque St. (113 Liberal Arts)

CHARLES CLEVELAND NUTTING, B. A., 1880; M. A., 1882, Blackburn University.
Professor and Head of the Department of Zoology, and Curator of the Museum of Natural History, 1886.
922 E. Washington St. (Science Hall, third floor)

ISAAC ALTHAUS LOOS, B. A., 1876; M. A., 1879, Otterbein; B. D., 1881, Yale; D. C. L., 1898, Penn Coll.
Professor of Sociology and Political Philosophy, and Director of the School of Political and Social Science, 1889.
11 E. Bloomington St. (205 Liberal Arts)

WILLIAM CRAIG WILCOX, B. A., 1888; M. A., 1891, University of Rochester.
Professor of American History, and Head of the Department, 1894.
629 N. Dubuque St. (222 Liberal Arts)

FREDERICK C. L. VAN STEENDEREN, M. A., 1893, Penn Coll.
Professor and Head of the Department of French Language and Literature, 1893. 309 Church St. (120 Liberal Arts)

ALFRED VARLEY SIMS, C. E., 1888, Pennsylvania.
Professor and Head of the Department of Civil Engineering, 1895.
Bloom Terrace. (Engineering Hall)

GILBERT LOGAN HOUSER, B. S., 1891; M. S., 1892, Iowa; PH. D., 1901, Johns Hopkins.
Professor and Head of the Department of Animal Morphology and Physiology, 1892. 422 Iowa Ave. (Science Hall, first floor)

BENJAMIN FRANKLIN SHAMBAUGH, B. PH., 1892; M. A., 1893, Iowa; PH. D., 1895, Pennsylvania.
Professor and Head of the Department of Political Science, 1895.
219 N. Clinton St. (202 Liberal Arts)

CLARK FISHER ANSLEY, B. A., 1890, Nebraska.
Professor and Head of the Department of English, 1899.
1041 Woodlawn. (227 Liberal Arts)

LEONA ANGELINE CALL, B. A., 1880; M. A., 1883, Iowa.
Professor of Greek Language and Literature, 1885.
21 N. Dubuque St. (106 Liberal Arts)

HENRY EVARTS GORDON, B. A., 1879; M. A. 1901, Amherst.
Professor of Public Speaking, 1900.
303 N. Capitol St. (312 Liberal Arts)

ARTHUR FAIRBANKS, B. A., 1886, Dartmouth; PH. D., 1890, Freiburg, i. B.
Professor of Greek Literature and Archæology, and Head of the Department of Greek; Secretary of the Graduate Faculty; University Editor, 1900. 7 E. Bloomington St. (310 Liberal Arts)

ALDEN ARTHUR KNIPE, M. D., 1896, Pennsylvania.
Director of Physical Culture, 1900. (Armory)

FREDERICK ELMER BOLTON, B. S., 1893; M. S., 1896, Wisconsin; PH. D., 1898, Clark.
Professor and Head of the Department of Education; Director of the Summer Session, 1900.
1019 College St. (217 Liberal Arts)

COLONEL GEORGE RITTER BURNETT, Graduate U. S. Mil. Acad., West Point, 1880; of U. S. School of Application, Ft. Leavenworth, 1885; First Lieut. U. S. A.
Professor of Military Science and Tactics, and Commandant of the Cadet Battalion, 1901. 510 College St. (Armory)

BOHUMIL SHIMEK, C. E., 1883; M. S., 1902, Iowa.
Professor of Physiological Botany, Professor of Botany in the College of Pharmacy, and Curator of the Herbarium, 1895.
529 Brown St. (Science Hall, second floor)

FRANKLIN HAZEN POTTER, B. A., 1892; M. A., 1895, Colgate.
Professor of Latin, 1895. 527 N. Linn St. (111 Liberal Arts)

CARL EMIL SEASHORE, B. A., 1891, Gustavus Adolphus; PH. D., 1895, Yale.
Professor of Psychology, 1897. 204 Fairchild St. (211 Liberal Arts)

RUSSELL D. GEORGE, M. A., 1898, McMaster University, Toronto.
Professor of Petrology and Economic Geology, 1900.
110 N. Clinton St. (Hall of Science)

HARRY GRANT PLUM, B. PH., 1894; M. A., 1896, Iowa.
Professor of European History, 1900.
222 Fairchild St. (315 Liberal Arts)

JOHN FRANKLIN BROWN, B. PH., 1889; M. A., 1895, Earlham; PH. D., 1896, Cornell.
Professor in Education, and Inspector of High Schools, 1901.
110 N. Clinton St. (216 Liberal Arts)

GEORGE T. FLOM, B. L., 1893, Wisconsin; M. A., 1894, Vanderbilt; PH. D., 1899, Columbia.
Acting Professor in charge of Scandinavian Languages and Literatures, 1900. 124 Church St. (10 Liberal Arts)

CHARLES SCOTT MAGOWAN, C. E., 1884; M. A., 1887, Iowa.
Assistant Professor of Civil Engineering, 1886.
304 Summit St. (South Hall)

HENRY FREDERICK WICKHAM, M. S., 1894, Iowa.
Assistant Professor of Zoology, and Assistant Curator of the Museum of Natural History, 1894. 911 Iowa Ave. (Science Hall, third floor)

ARTHUR G. SMITH, B. PH., 1891; M. A., 1895, Iowa.
Assistant Professor of Mathematics, 1893.
West Side. (12 Liberal Arts)

ALICE YOUNG, B. L., 1896, Minnesota.
Assistant Professor of English, and Dean of Women, 1900.
111 N. Clinton St. (117 Liberal Arts)

FREDERICK BERNARD STURM, B. A., 1892, Michigan.
Assistant Professor of German, 1892.
402 Church St. (102 Liberal Arts)

*WILLIAM ROLLA PATTERSON, B. Di., 1888; B. S., 1889, Iowa State Normal; B. PH., 1895, Iowa; PH. D., 1898, Pennsylvania.
Assistant Professor of Statistics and Economics, 1898.
505 Washington St. (209 Liberal Arts)

CLARENCE WILLIS EASTMAN, B. S., 1894, Worcester Polytechnic; M. A., PH. D., 1898, Leipzig.
Assistant Professor of German, 1898.
225 E. Fairchild St. (102 Liberal Arts)

JOSEPH JASPER MCCONNELL, B. A., 1876; B. Di., 1878; M. A., 1880, Iowa.
Lecturer on Education, 1891. Cedar Rapids, Iowa

LUTHER ALBERTUS BREWER, B. A., 1883; M. A., 1886, Pennsylvania College.
Lecturer on Journalism, University Publisher, 1900.
Cedar Rapids, Iowa

THE REV. GEORGE LUTHER CADY, B. A., 1890, Olivet College.
Lecturer on Sociology, 1900. 725 N. Linn St.

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*HERBERT CLIFFORD DORCAS, B. PH., 1895, Iowa.
Instructor in Education, and University Examiner, 1895.
427 Ronalds St. (218 Liberal Arts)

LOUISE ELIZABETH HUGHES, B. PH., 1878; M. A., 1881; B. A., 1899, Iowa.
Instructor in Latin, 1896. 122 N. Capitol St. (112 Liberal Arts)

CARL LEOPOLD VON ENDE, B. S., 1893; M. S. 1894, Iowa; PH. D., 1899, Goettingen.
Instructor in Chemistry, 1899. West Side. (Chem. Lab'y)

JOHN VAN ETTEN WESTFALL, B. S., 1895, Cornell; PH. D., 1898, Leipzig.
Instructor in Mathematics, 1899. 127½ S. Dubuque St. (12 Liberal Arts)

SIVERT N. HAGEN, B. A., 1896, Luther College; PH. D., 1900, Johns Hopkins.
Instructor in English, 1900. 209 Fairchild St. (207 Liberal Arts)

CHARLES F. LORENZ, B. S., 1897; M. S., 1898, Iowa.
Instructor in Physics, 1900. West Side. (Hall of Physics)

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*Absent on leave.

JOHN J. LAMBERT, B. Di., 1896; M. Di., 1897, Iowa State Normal; B. PH., 1899; M. S., 1901, Iowa.
Instructor in Animal Morphology and Physiology, 1898.
120 E. Market St. (Science Hall, first floor)

STEPHEN HAYES BUSH, B. A., 1901; M. A., 1902, Harvard.
Instructor in French, 1901. 221 Fairchild St. (120 Liberal Arts)

SAM BERKLEY SLOAN, B. A., 1899, Nebraska.
Instructor in English, 1899.
506 N. Linn St. (118 Liberal Arts)

HENRY WALDGRAVE STUART, B. PH., 1895, California; PH. D., 1900, Chicago.
Instructor in Philosophy, 1901. 221 Fairchild St. (209 Liberal Arts)

PAUL SKEELS PEIRCE, B. PH., 1897, Cornell; PH. D. 1900, Yale.
Instructor in History, 1902. 124 Church St. (223 Liberal Arts)

MARGARET A. SCHAFFNER, B. A., 1895, Emporia; M. A., 1899; PH. D., 1902, Wisconsin.
Instructor in Sociology and Economics, 1902.
114 N. Capitol St. (205 Liberal Arts)

J. PERCIVAL HUGGETT, M. Di., 1892, Iowa State Normal.
Instructor in Education, and Acting University Examiner, 1902.
923 Iowa Ave., (218 Liberal Arts)

FRANK EDWARD HORACK, B. PH., 1897; M. A., 1899, Iowa; PH. D., 1902, Pennsylvania.
Instructor in Political Science, 1902.
120 N. Dodge St. (202 Liberal Arts)

WILLIAM E. BECK, B. S. 1900; M. S., 1902, Iowa.
Assistant Instructor in Mathematics, 1900.
518 S. Clinton St. (115 Liberal Arts)

JACOB E. CONNER, B. A., 1891, Iowa.
Assistant Instructor in Commerce and Finance, 1900.
222 Ronalds St. (208 Liberal Arts)

ALICE ANKENEY, B. A. 1897, Wells College.
Assistant Instructor in Chemistry, 1901.
728 E. Washington St. (Chemical Laboratory)

PERCIVAL HUNT, M. Di., 1897, Iowa State Normal; B. A., 1900, Iowa.
Assistant Instructor in English, 1900.
215 Ronalds St. (226 Liberal Arts)

FRANK ALBERT STROMSTEN, B. S., 1900; M. S., 1902, Iowa.
Assistant Instructor in Animal Morphology, 1900.
120 E. Market St. (Science Hall, first floor)

MABEL CLARE WILLIAMS, B. PH., 1899, Iowa.
Assistant Instructor in Psychology, 1899.
108 N. Johnson St. (215 Liberal Arts)

JOHN GABBERT BOWMAN, B. A., 1899, Iowa.
Assistant Instructor in English, 1901.
215 Ronalds St. (226 Liberal Arts)

KATHERINE PAINE, B. PH., 1889, Iowa.
Assistant Instructor in Latin, 1900. 513 Summit St. (109 Liberal Arts)

THOMAS WARNER MITCHELL, B. A., 1900, University of Washington.
Assistant Instructor in Economics and Statistics, 1902.
522 E. Bloomington St. (208 Liberal Arts)

HARRIETTE GRACE HOLT, B. PH., 1896, Iowa.
Assistant Instructor in French, 1902. 225 Iowa Ave. (6 Liberal Arts)

BYRON JAMES LAMBERT, B. DI., 1896; M. DI., 1897, Iowa State Normal; B. PH., 1900; B. S. in C. E., 1901, Iowa.
Assistant Instructor in Civil Engineering, 1902.
24 N. Clinton St. (South Hall)

LEE PAUL SIEG, B. S., 1900; M. S., 1901, Iowa.
Fellow in Physics, 1900. 314 E. Church St. (Hall of Physics)

HELEN MAY EDDY, B. A., 1900, Iowa.
Fellow in Latin, 1901. 4 Jefferson St. (112 Liberal Arts)

HARRY EDWARD BURTON, B. A., 1901, Iowa.
Fellow in Mathematics, 1901. 221 Church St. (115 Liberal Arts)

JAMES HENRY LEES, B. DI., 1893; M. DI., 1897, Iowa State Normal; B. A., 1901, Coe College.
Fellow in Geology, 1901. 923 Iowa Ave. (Science Hall)

MARY EMMA POLK, B. A., 1900, Iowa.
Fellow in English, 1902. 96 E. Market St. (226 Liberal Arts)

MARY GROVE CHAWNER, B. A., 1896, M. A., 1902, Penn College.
Fellow in English, 1902. 720 E. Jefferson St. (226 Liberal Arts)

FLETCHER BRIGGS, B. PH., 1901; M. A., 1902, Iowa.
Fellow in German, 1902. 213 E. Market St. (103 Liberal Arts)

THEODORE J. SAAM, B. S., 1898, Lenox.
Fellow in History, 1902. 324 Davenport St. (223 Liberal Arts)

WALTER MARTINUS BOEHM, B. S., 1902, Iowa.
Scholar in Physics, 1900. 406 S. Clinton St. (Hall of Physics)

FRED JAY SEAVER, B. S., 1902, Morningside College.
Scholar in Botany, 1902. 402 Iowa Ave., (Science Hall, second floor)

SARAH RUTH QUIGLEY, B. PH., 1902, Iowa.
Scholar in English, 1902. 419 N. Dubuque St. (226 Liberal Arts)

JOSEPH HARDING UNDERWOOD, B. A., 1902, Western College.
Scholar in Economics and Statistics, 1902.
307 Iowa Ave. (205 Liberal Arts)

EDWARD ROBERT COLLINS, B. S., 1895, Iowa State Normal; B. S., 1902, Iowa.
Scholar in Education, 1902. 313 S. Dubuque St. (220 Liberal Arts)

FANNY ANNETTE SUNIER, B. PH., 1902, Iowa.
Scholar in French, 1902. West Side. (6 Liberal Arts)

CHARLOTTE MARIE LORENZ, B. A., 1902, Iowa.
Scholar in German, 1902. West Side. (8 Liberal Arts)

MABEL CLARE SMITH, B. A., 1902, Iowa.
Scholar in Greek, 1902. 21 N. Dubuque St. (310 Liberal Arts)

LINCOLN FREDERICK SCHAUB, B. A., 1901, Charles City College.
Scholar in Philosophy, 1902. 208 Fairchild St. (214 Liberal Arts)

THOMAS FARRELL, B. A., 1902, Iowa.
Scholar in Public Speaking, 1902. 406 N. Gilbert St. (312 Liberal Arts)

JOHN MILTON MEHAFFEY, B. PH., 1902, Iowa.
Scholar in Sociology, 1902. 318 S. Clinton St. (205 Liberal Arts)

WILLIAM B. BELL, M. DI., 1899, Iowa State Normal; B. A., 1902, Iowa.
Scholar in Zoology, 1902.
318 N. Dubuque St. (Science Hall, third floor)

HARVEY HAYES LOCHRIDGE, B. S., 1901, Beloit.
Assistant in Chemistry, 1901. 514 N. Linn St. (Chemical Laboratory)

MARY SLEIGHT EVERTS.
Assistant in Public Speaking, 1901. 112 N. Clinton St.

HARRY M. IVINS.
Assistant in Botany, 1902. 311 Iowa Ave. (Science Hall, second floor)

FRANK D. KERN.
Laboratory Assistant in Morphology, 1102. (Science Hall.)

JOHN CARVILLE.
Assistant in Geology, 1892. 610 Jefferson St. (Science Hall, first floor)

RUDOLPH MARTIN ANDERSON.
Taxidermist. 8 College St. (Science Hall, third floor)

STANDING COMMITTEES OF THE FACULTY OF THE COLLEGE OF LIBERAL ARTS

ADMISSION AND CLASSIFICATION: Professors Wilson, Currier, Macbride, Loos, Nutting, Seashore, the Registrar.

COURSES OF STUDY: Professors Currier, Macbride, Weld, Loos, Sims, Houser, Shambaugh, Ansley, Brown.

PROGRAMME: Professors Weld, Andrews, Flom.

EXECUTIVE: The President, Professors Macbride, Loos.

MILITARY: Professors Burnett, Gordon, George, Knipe.

PREPARATORY SCHOOLS: Professors Brown, Calvin, Fairbanks, Potter.

LIBRARY: The President, Professors Nutting, Andrews, Shambaugh, Fairbanks.

RULES: Professors Veblen, Van Steenderen, Fairbanks.

SUMMER SESSION: Dean in Residence, Professors Weld, Wilcox, Ansley, Shimek.

CONDITIONED STUDENTS: Professor Nutting, The Dean of Women, The Registrar, The University Examiner.

FIRST YEAR STUDENTS: Professors Plum, Shimek, Sturm.

PHYSICAL CULTURE OF WOMEN: The Dean of Women, Professors Call, Knipe.

GENERAL PLAN

The College of Liberal Arts offers three general courses of study—Classical, Philosophical, and General Scientific—and four technical courses—Civil Engineering, Electrical Engineering, Mining Engineering, Mining and Metallurgy. The requirements and lines of work offered are set forth under Courses of Study.

REQUIREMENTS FOR ADMISSION

Applicants for admission to the freshman class in any of the courses of the College of Liberal Arts must be at least sixteen years of age, and must present satisfactory evidence of having completed the preparatory studies specified below. An examination is required of all students who do not present acceptable certificates.

It is expected that the following branches of study will be completed in the grammar school: Practical Arithmetic, Reading, Penmanship, Elementary English Grammar and English Composition, Geography, Bookkeeping (single entry), Physiology (the statutory requirements for primary and grammar schools), United States History (two semesters' work).

In estimating the amount of work required for admission, a *preparatory credit* is regarded as the equivalent of one study daily for a term of eighteen weeks on the basis of four studies a day. Thus eight credits stand for a normal year's work.

For admission to the University thirty preparatory credits are required. No student will be admitted whose deficiencies exceed the amount represented by two credits, except as provided in the following paragraph: Candidates having deficiencies not exceeding this limit may be admitted upon condition that they complete their preparatory work within the first year after admission. Students who are admitted with conditions can make them up in the Iowa City Academy or under the direction of private tutors approved by the Faculty.

Applicants for admission to the College of Liberal Arts who present thirty credits in acceptable preparatory subjects but who are deficient in required preparatory work may be admitted as unclassified students. Such students will be required to make up the deficiencies in required

preparatory work at once without receiving college credit therefor. When all the entrance requirements have been met, such unclassified students will be transferred to the list of regular candidates for a degree.

Of the thirty preparatory credits required of all students eighteen are the same for all courses and twelve differ with the course of study to be pursued. The requirements common to all courses are as follows:

Mathematics (Group IV) . . . . 6 credits
English (Group II) . . . . . 6 credits[1]
History and Civics (Group III). . 4 credits
Science (Group V) . . . . . 2 credits

The requirements which differ with the course of study to be pursued are as follows:

Classical Course

Latin . . . . . 8 credits
Greek or elective . . . . . 4 credits

Philosophical Course

Latin or German or French . . . 8 credits[2]
Elective . . . . . 4 credits

Scientific and Engineering Courses

Foreign Language . . . . . 4 credits[3]
Elective . . . . . 8 credits[1]

The electives presented for admission may consist of additional work in foreign languages to complete the entire thirty credits, or of additional work of approved character in English, or in History, or of work in science as outlined under Group V below. Candidates are advised to present additional work in a foreign language, English, or History, rather than to present the maximum of six semesters' work in Science. When additional work in Latin

1. *Eight* credits are required in English of all students who do not present eight credits in some one foreign language.

2. These eight credits must be offered in *one* of the three languages named.

3. The requirements in foreign language for the Scientific and Engineering Courses may be satisfied by two years in Latin, or in German, or in French, but not by a single year in each of two languages.

or modern languages is presented as an elective, it is provided that not less than two years be given to some one language, and not less than one year to each additional language that may be offered.

THE SUBJECTS REQUIRED FOR ADMISSION

GROUP I—FOREIGN LANGUAGES

In the case of each of the four foreign languages which may be offered for admission a course of study is suggested. What the University demands, however, is proficiency in the subject rather than a particular course of foreign language study, and the courses are outlined simply to indicate how the necessary proficiency may be attained.

1. GREEK—Grammar, Xenophon's *Anabasis* (four books), Homer's *Iliad* (three books).

The preparatory work in Greek should give thorough knowledge of grammatical forms, familiarity with the common rules of syntax, and a considerable working vocabulary. White's *First Greek Book* and Goodwin's *Greek Grammar* are the books recommended for beginners. Exercise in writing Greek should be kept up through the whole preparatory course in order to fix the student's knowledge of vocabulary as well as of grammar, and to place it completely at his command. The work in Homer should give familiarity with peculiar Homeric forms, the commoner words in the Homeric vocabulary, and the metre of the epic.

For the present the University offers a course in beginning Greek, and students coming from high schools where Greek is not taught may offer preparatory credits from the elective group instead of four credits in Greek. Such students will receive college credit for work in beginning Greek.

2. LATIN—Grammar, Cæsar (four books), Cicero (six orations), Vergil (six books), with Prosody.

Instead of the prescribed Cæsar an equivalent amount of *Vivi Romæ* or Nepos will be accepted, It is expected that four of the six required orations of Cicero (the Catiline orations being taken as the standard of length) and four of the

six books of Vergil will be read thoroughly, and the remainder rapidly with a view to securing facility in translation. Equivalents in kind will be accepted for any part of the specific requirements. Sight reading should be taught and practiced from the first. An accurate and ready knowledge of grammatical forms and construction and a good vocabulary are of essential importance. Unless the student has acquired this knowledge, he is not prepared for Freshman work in Latin.

Exercise in writing Latin, based upon the current reading, ought to be carried through the *entire preparatory course.* An amount equivalent to Collar, Part III, is required for admission.

The Roman pronunciation is used in the University.

3. FRENCH—Grandgent's *Essentials of French Grammar* or Edgren's *French Grammar*, and Super's *Reader*, with Mérimée's *Colomba*, will be accepted as an equivalent of the first year's work in French.

Alfred de Vigny's *Le cachet rouge*, Victor Hugo's *La chute*, Alexandre Dumas' *Les trois mousquetaires*, Lamartine's *Graziella*, Wells's Selections from Balzac's *Comédie humaine* and either Alphonse Daudet's *Nabob*, or Cameron's *Contes de Daudet* will be accepted as an equivalent of the second year's work in French.

GERMAN—During the first year the work in German should comprise: (1) Careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar, that is, upon the inflections of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs, and the more usual strong verbs, also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word order; (4) abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (5) the reading of from seventy-five to one hundred pages of graduated texts.

During the second year the work should comprise:

(1) The reading of about one hundred and fifty pages of literature in the form of easy stories and plays; (2) accompanying practice in the translation into German of easy variations upon the matter read; (3) continued drill upon the rudiments of the grammar.

For a fuller statement of the work to be done and for suggestions as to the methods and available texts, the teacher is referred to Section VII of the *Report of the Committee of Twelve of the Modern Language Association of America*, which has been issued in a convenient form by Messrs. D. C. Heath & Co. This report should be in the hands of every teacher of modern languages.

GROUP II—ENGLISH

Applicants for admission to the College of Liberal Arts, who present eight semester credits in some one foreign language are required to present at least six semester credits in English. Other applicants are required to present eight semester credits in English.

5. ENGLISH—All applicants for admission, whether from accredited schools or not, will be examined to test their knowledge of English grammar and their ability to write clearly and correctly. No applicant will be accepted who is deficient in these matters. In addition to passing this examination, the applicant must present evidence of work as follows:

a. English Grammar, Word Study, and History of the English Language . . 2 credits

At least one credit must be in English Grammar. This must be a course in grammar taken in the high school or other secondary school. Eighth grade grammar will not be accepted, as pupils in that grade have not sufficient maturity of mind for a final study of the subject. Textbooks suggested are: Buehler's *Modern English Grammar* (Newson & Co.); Carpenter's *Principles of English Grammar* (The Macmillan Co.); Baskervill and Sewell's *English Grammar* (American Book Co.); Davenport and Emerson's *Principles of Grammar* (The Macmillan Co.); Whitney and Lockwood's *English Grammar* (Ginn & Co.); Whitney's *Essentials of English Grammar* (Ginn & Co.).

The study of words should be based upon some such book as *A Study of English Words*, by Jessie M. Anderson (American Book Co.).

b. Composition and Rhetoric . . 2 credits

Proper preparation for this requirement includes constant practice in writing, with careful correction and revision of themes. A part of the time should be devoted to the study of some good text-book. Text-books suggested are: Herrick and Damon's *Composition and Rhetoric* (Scott, Foresman & Co.); Keeler and Davis's *Studies in English Composition* (Allyn and Bacon); Scott and Denney's *Composition-Rhetoric* (Allyn and Bacon); Lockwood and Emerson's *Composition and Rhetoric* (Ginn & Co.); Newcomer's *Elements of Rhetoric* (Holt & Co.); Lewis's *Inductive Lessons in Rhetoric* (D. C. Heath & Co.); Webster's *English: Composition and Literature* (Houghton, Mifflin & Co.); Smith-Thomas's *Complete Course* (Benj. H. Sanborn & Co.).

c. Literature . . . . . 4 credits

Throughout the high school course much attention should be paid to English and American Literature. Entire masterpieces suited to the attainments of the class should be carefully studied. In addition, collateral reading should be assigned and written reports required. Among the masterpieces should be those suggested in the "uniform college entrance requirements" in English. For 1903, 1904, and 1905 these are as follows:

(1) For careful study:

Burke's Speech on *Conciliation with America;* Macaulay's Essays on *Milton* and *Addison;* Milton's Minor Poems; Shakespeare's *Macbeth.*

(2) For general reading:

Addison's Sir Roger de Coverley Papers; Coleridge's *The Ancient Mariner;* Eliot's *Silas Marner;* Goldsmith's *The Vicar of Wakefield;* Lowell's *The Vision of Sir Launfal;* Scott's *Ivanhoe;* Shakespeare's *The Merchant of Venice;* Shakespeare's *Julius Cæsar;* Tennyson's *The Princess.*

During the last year of the course a good outline history of English Literature, such as Pancoast's *Introduction to*

English Literature (Henry Holt & Co.); Halleck's *History of English Literature* (American Book Co.); Scudder's *English Literature* (Globe School Book Co.); or Painter's, *History of English Literature* (Sibley & Ducker); should be carefully studied.

For the study of American Literature, text-books suggested are: Noble's *Studies in American Literature* (The Macmillan Co.); Matthews's *Introduction to American Literature* (American Book Co.); Newcomer's *American Literature* (Scott, Foresman & Co.); Pancoast's *American Literature* (Holt & Co.).

GROUP III—HISTORY AND CIVICS.

6. HISTORY — At least four semesters' work should be presented in History and Civics. The course of study and available text-books should be somewhat as follows: First semester, *History of Greece* (Oman, Smith, Cox, or Myers); second semester, *History of Rome* (Allen, Morey, Smith, or Myers); third semester, *History of England* (Larned, Montgomery, or Gardiner); or *The History of the United States* (Channing, Thomas, Fiske, Johnston, Montgomery, McMaster, or McLaughlin); fourth semester, *The History of the United States*, or *Civil Government* (Fiske's *Civil Government* or Andrews's *Manual of the Constitution*).

Instead of the first two semesters' work in History indicated above, which is preferred, the University will accept for the present two semesters' work in general history from one of the following text-books: Myers, Fisher, Freeman, or Colby.

7. CIVICS — As indicated in the preceding paragraph at least one semester's work should be presented in Civics, following where possible, elementary work in the grammar school. This work in Civics should preferably follow at least a part of the work in History. (Fiske's *Civil Government* or Andrews's *Manual of the Constitution.*)

8. ECONOMICS — (a) A half year's work on the Principles of Political Economy as presented in the following text-books will be accepted: J. Laurence Laughlin's *Elements of Political Economy* (American Book Co.); Francis A. Walker's *First Lessons in Political Economy* (Henry Holt

& Co.); or (b) Industrial History and the Elements of Economic Theory studied on the basis of an outline like Henry W. Thurston's *Economics and Industrial History for Secondary Schools* (Scott, Foresman & Co.); or Frederick R. Clow's *Introduction to the Study of Commerce* (Silver, Burdette & Co.).

GROUP IV — MATHEMATICS

9. ALGEBRA — The Algebra of the high school should comprise a careful study of the following topics: signs and symbols; fundamental operations; factoring (including lowest common multiple and highest common divisor); fractions; simple and quadratic equations; theory of exponents (including negative and fractional exponents and radicals); progressions. Especial attention should be given to such salient points as the significance of the minus sign, factoring, theory of exponents, equations, and the formal statement of algebraic problems. The interpretation of algebraic results with their graphical representation should be introduced at the earliest possible stage and constantly insisted upon.

Three credits, representing at least one and a half years' work of daily recitation, are required in Algebra.

10. GEOMETRY—Both Plane and Solid Geometry are required. In beginning the study of Geometry the "heuristic" method is recommended (see Hopkin's *Manual of Plane Geometry*, D. C. Heath & Co.; Spencer's *Inventional Geometry*, D. Appleton & Co.; Campbell's *Observational Geometry*, Harper & Brothers).

Whatever method is used, the pupil should be provided with adequate drawing intruments and should construct and verify all of his positions and theorems. Geometric processes and results should be expressed by algebraic symbols whenever possible. Original investigations should not simply be encouraged, but should be insisted upon as a matter of course. The eminently practical side of the study of Geometry is not to be lost sight of, but the work should be so arranged that it may be of the highest disciplinary value. The language of all geometrical exercises should be exact.

Three credits, representing at least one and a half years' work of daily recitation, are required in Geometry; one semester should be devoted to Solid Geometry.

11. ARITHMETIC—The work in Arithmetic should in general be completed in the grammar grades. A half year's work in Arithmetic and review Algebra may be done with great profit in the high school after the completion of the required work in Algebra and Geometry. Not only will a general review of the subject be found beneficial in itself, but the higher point of view now attainable may be taken advantage of in many ways.

In addition to the six credits in Algebra and Geometry, one credit for advanced work in Arithmetic, and one credit for work in Bookkeeping (by double entry) will be accepted as part of the elective credits.

It is desirable that the high school work in Mathematics be not finished until the end of the course, in order that there may be no break in the continuity of the work between the high school and the University.

GROUP V—SCIENCE

Work in the sciences named below will be accepted in partial fulfillment of the requirements for admission, provided that the student has given to each subject offered not less than the time indicated in the table below. The subjects are arranged in order of preference.

Beginning with September, 1904, two semesters' work in Chemistry with adequate laboratory facilities and regular laboratory work by pupils will be required for credit.

1. Physics, 36 weeks;
2. Botany, 18 weeks;
3. Physical Geography, 18 weeks;
4. Physiology, 18 weeks;
5. Chemistry, 18 weeks;
6. Zoology, 18 weeks.

12. PHYSICS—One of the chief aims of the course in Physics should be to train pupils in accurate and impartial observation, and to develop independent judgment rather than to impart knowledge of a large number of facts. Constant use should be made of problems in which the pupil may apply the mathematics he has already mastered.

The competent teacher will know how to make valuable use of simple apparatus, such as can be made or procured

at home; but the subject cannot be satisfactorily presented without some special instruments, and these should be of modern design and good workmanship. In all schools there should be a supply of such appliances as will enable the teacher to present to the class in a successful manner the more interesting domonstrations of phenomena and laws.

Among the good text-books and manuals are: Carhart and Chute's *Elements of Physics* (Allyn & Bacon); Geo. A Hoadley's *A Brief Course in Physics* (American Book Co.); Charles B. Thwing's *An Elementary Physics* (Benj. H. Sanborn & Co.); Rowland and Ames's *Elements of Physics* (American Book Co.); Hall & Bergen's *A Text Book of Physics* (Henry Holt & Co.).

One full year should be given to the study of Phyics. Of this time not less than one-half should be devoted to experiments and observations by the pupil.

13. BOTANY—The aim should be to make pupils familiar with the local flora, especially in its economic aspects. The habit of accurately observing and then carefully recording should be established from the first. Probably a carefully kept note book will be found much better than an herbarium.

The following text-books are suggested as suitable for the guidance of study in elementary Botany: Macbride's *Lessons in Elementary Botany* (Allyn & Bacon); Coulter's *Plant Relations* (D. Appleton & Co.); Barnes's *Outlines of Plant Life* (Henry Holt & Co.); Bailey's *Lessons with Plants* (The Macmillan Co.); Leavitt's *Outlines of Botany* (The American Book Co.); Coulter's *Plant Structures* (D. Appleton & Co.); Atkinson's *Elementary Botany* (Henry Holt & Co.); Steven's *Introduction to Botany* (D. C. Heath & Co.).

The minimum amount of work for which preparatory credit will be given is the equivalent of five recitations or exercises per week for half the school year.

14. PHYSICAL GEOGRAPHY — The pupil should gain a knowledge of the simpler facts and principles of the mathematical geography, such as the relations of the members of the solar system, the form and movements of the earth, the phases of the moon, etc.; the atmosphere, the atmospheric phenomena, such as winds, temperature, precipitation, etc.,

and their causes; the evolution of the land forms, including the modifying agencies and their mode of operation; the ocean, its movements, their causes, their effects upon climate and life; the life of the ocean; the effect of climate and topography on human activity, etc.

The following text books are recommended: Dryer's *Lessons in Physical Geography* (American Book Co.); *Introduction to Physical Geography*, by Gilbert and Brigham (Appletons); *Elementary Physical Geography*, by W. M. Davis (Ginn & Co.); *Physical Geography*, by W. M. Davis (Ginn & Co.); *Elementary Lessons in Physical Geography*, by A. Geikie (The Macmillan Co.); *Elementary Physical Geography*, by R. S. Tarr (The Macmillan Co.); The *Topographic Atlas of the United States*, *Physiographic Types*, Folios I, II, and III, published by the United States Geological Survey, at twenty-five cents each, are very valuable for class exercises. The following books are excellent for reference: *The Teaching of Geography*, by A. Geikie (The Macmillan Co.); *The Realm of Nature*, by R. H. Mill (Chas. Scribner's Sons); *Earth Sculpture*, by Jas. Geikie (G. P. Putnam's Sons); *Geography of the Region of Devil's Lake and the Dalles of the Wisconsin*, by R. D. Salisbury and W. W. Atwood, published by the Wisconsin Geological Survey, E. A. Birge, Director, Madison, Wisconsin; *Government Maps for use in Schools*, by Davis, King, and Collie (Henry Holt & Co.); the county reports published by the Iowa Geological Survey will furnish valuable aid in field work. The local field should be used for illustration as far as possible. Maps, globes, physiographic models, etc., are indispensible to the efficient teaching of this subject. The Rand-McNally Company of Chicago, publishes an excellent series of Physical maps of the continents and oceans.

The minimum amount of work for which preparatory credit will be given is the equivalent of five recitations or exercises per week for half the school year.

15. PHYSIOLOGY — For preparation in Physiology, the method of study should combine certain work of a practical nature with lessons from the text-book. This practical work should embrace the observation of general physiolog-

ical phenomena through experiments so simple that the pupil can make most of them, supplemented by demonstrations in anatomy and microscopy carefully prepared by the teacher. Expensive apparatus is not only unnecessary for this work, but it is really out of place. Even the microscope should be used only as an occasional accessory to what the pupil may observe with unaided vision. The keeping of notes and sketches, recording clearly and systematically the more important observations, should accompany the course throughout.

The following text-books are recommended as indicating the scope of acceptable preparatory work: Colton's *Physiology, Briefer Course* (D. C. Heath & Co.); Martin's *Human Body, Briefer Course*, revised by Fitz (Henry Holt & Co.); Blaisdell's *Practical Physiology* (Ginn & Co.); Foster and Shore's *Physiology for Beginners* (The Macmillan Co.); Macy's *Physiology for High Schools* (American Book Co.).

The minimum amount of work for which preparatory credit will be given is the equivalent of five recitations and laboratory exercises per week for half the school year.

16. CHEMISTRY—Emphasize facts rather than theories. Great care should be taken that pupils are not left with the impression that formulas or equations control the phenomena instead of being merely their expression. Laboratory work is regarded as essential to an understanding of the subject. The experiments should be simple, and the inferences from them as direct as possible. Any arrangement in schedule form, with headings for "observations," "conclusions" and the like, tends to deaden thought rather than to arouse it. No credit will be given for work in this branch in schools where there is no laboratory whatever. Chemistry should be omitted from the High School course except in those schools were adequate laboratory facilities are available for individual laboratory work continuing throughout one year. *Elements of Chemistry*, by Paul C. Freer (Allyn & Bacon); *Elements of Chemistry*, by Ira Remsen (Henry Holt & Co.), ; and *Elements of Inorganic Chemistry*, by J. H. Shepard (D. C. Heath & Co.), are recommended as suitable text-books for use in secondary schools.

Beginning with September, 1904, the minimum time to be devoted to Chemistry in order to receive credit should be one year of daily laboratory work.

17. ZOOLOGY—Elementary Zoology should deal principally with the easily ascertained facts concerning some few animal forms. It is therefore recommended that the general anatomy and life histories of some typical groups of animals be made the subject of the study, and that the aim be the acquisition of the habit of correct observation and a definite knowledge concerning a few animals, rather than the learning of classification and a superficial knowledge of the animal kingdom as a whole.

Directions for laboratory work are found in most text-books. Money for this purpose should be expended in plain but convenient tables, good dissecting microscopes, and a few cheap tools rather than in expensive compound microscopes.

Pupils should be induced to examine carefully, and to make the most of each specimen. They should be encouraged to ask questions, and to find the answer for themselves so far as practicable.

The following text-books indicate the character and extent of the preparatory work in Zoology which will be accepted: *Practical Zoology*, Colton (D. C. Heath & Co.); *School Zoology*, Burnet (American Book Co.); *Lessons in Zoology*, Needham (American Book Co.); *Animal Life*, Jordan (D. Appleton & Co.)

The minimum time to be devoted to Zoology in order to receive credit for admission to the University should be one hour's laboratory work daily for a half year. This should be supplemented by field work and reading under the direction of the teacher.

EXAMINATION FOR ADMISSION

All applicants for admission without exception will be examined to test their knowledge of English Grammar and their ability to write clear and correct English.

Applicants presenting proper certificates from accredited schools will be admitted without further examination. These

certificates are to be made out on blank forms which will be furnished on application to the President of the University, and they must contain specific statements as to the amount of work done in each study. Delay in matriculation will be avoided if these certificates are made out and forwarded to the University before September 1.

At other high schools and in places where academies or other private schools are situated, the University is prepared to hold examinations during the third week in June. The successful candidates will receive certificates admitting them to the University.

Applicants presenting certificates from accredited schools for work not fully meeting the requirements for admission, will be examined on the subjects in which they are deficient.

If an applicant for admission by certificate has completed the prescribed amount of preparatory work in certain branches of study in less time than that indicated as being necessary under ordinary conditions, the University reserves the right to examine him in such branches of study.

All other applicants will be examined in the various subjects required for admission before being admitted as students in the University

Any person expecting to enter the College of Liberal Arts is advised to learn before the opening of the semester exactly what entrance examinations he will be required to pass. He can learn this by addressing the President, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programmes given below.* He should present himself at once at the office of the University Examiner, who will give all necessary directions.

For *each separate* examination given at any other time than that announced in the programmes which follow, a fee of *one dollar* will be charged by the University. For a series of examinations covering two or more subjects a fee of *two dollars* will be charged.

PROGRAMME OF ENTRANCE EXAMINATIONS

FIRST SEMESTER

Monday, September 21, to Wednesday, September 23, 1903

Greek,	2 to 4 credits, Monday,	1:30 p. m.
Latin,	2 to 8 credits, Monday,	3:30 p. m.
French,	2 to 4 credits, Monday,	1:30 p. m.
German,	2 to 4 credits, Monday,	3:30 p. m.
English and English Grammar,	2 credits, Monday,	4:30 p. m.
	2 credits, Tue., 11:00a. m. and	4:30 p. m.
	2 credits, Wed., 11:00a. m. and	4:30p. m.
Literature,	2 credits, Tuesday,	8:00 a. m.
General History,	2 credits, Tuesday,	9:30 a. m.
English History,	1 credit, Tuesday,	11:00 a. m.
United States History,	1 credit, Tuesday,	1:30 p. m.
Civics,	1 credit, Tuesday,	2:30 p. m.
Economics,	1 credit, Tuesday,	3:30 p. m.
Algebra,	3 credits, Wednesday,	8:00 a. m.
Plane and Solid Geometry,	3 credits, Wednesday,	9:30 a. m.
Physical Geography,	1 credit, Wednesday,	11:00 a. m.
Physics,	2 credits, Wednesday,	1:30 p. m.
Botany,	1 credit, Wednesday,	3:00 p. m.
Physiology,	1 credit, Wednesday,	4;00 p. m.

SECOND SEMESTER

Friday, February 5, to Monday, February 8, 1904

Same as above, reading Friday, Saturday and Monday for Monday, Tuesday and Wednesday, respectively.

ADVANCED STANDING

Students from approved colleges bringing proper certificates of work and standing will be admitted without examination. In determining their position in the University, however, the value of the work done will be measured by the University standards.

Students coming from colleges whose requirements for admission are substantially those of the University will be

admitted ordinarily to equal rank, *provided they enter not later than the beginning of the senior year.* The assignment of studies will be at the discretion of the faculty.

Graduates of the four years' course of the Iowa State Normal School will be admitted to junior standing without examination and will be required to spend two years at the University before receiving a degree.

The requirement that all applicants for admission to the University must bring certificates showing that they have completed two years' work in some one foreign language applies also to applicants for advanced standing.

COURSES OF STUDY

CLASSICAL COURSE

FRESHMAN YEAR

Greek	5 hours
Mathematics	4 hours
Latin	3 hours
English	2 hours
History	2 hours

SOPHOMORE YEAR

Greek*	5 hours
English	3 hours
Elective (not more than five hours in one department)	7 or 8 hours

In the Junior and Senior years, all work is elective. Of the thirty-eight hours of possible electives in this course *twenty* must be chosen from the departments of Languages and Literatures, the Historical and Political Sciences, Philosophy, Pedagogy, and Public Speaking.

PHILOSOPHICAL COURSE

FRESHMAN YEAR

German or French	5 hours
Mathematics	4 hours
Latin†	3 hours
English	2 hours
History	2 hours

*In case Greek is offered for admission, German or French must be taken in its place in Sophomore year.

†In case a modern language preparation is offered, any foreign language may be taken in place of Latin.

SOPHOMORE YEAR

German or French or Spanish . . . 3 hours
English . . . . . 3 hours
Elective (not more than five hours in one department) . . . . . 9 or 10 hours

In the Junior and Senior years all work is elective. Of the forty hours of possible electives in this course *twenty* must be chosen from the departments of Languages and Literatures, the Historical and Political Sciences, Philosophy, Pedagogy, and Public Speaking.

GENERAL AND SPECIAL COURSES IN THE SCHOOL OF POLITICAL AND SOCIAL SCIENCE.

To guide students who propose to elect all or a considerable portion of their undergraduate work in the School of Political and Social Science a general course in political and social science is here announced in which the specific requirements for the degree of B. A. and the degree of B. Ph. respectively are printed in the heavy face type to distinguish these requirements from the other parts of the course which are in the nature of advice and suggestion.

FRESHMAN YEAR: **Greek** 5 hours (if candidate for B A.), or **German** 5, or **French** 5 (if candidate for B. Ph.); **Latin** 3; **English** 2; **History** 2; and **Mathematics** 4. SOPHOMORE YEAR: **Greek** 5 (if candidate for B. A.), or **German** 3, or **French** 3 (if a candidate for B. Ph.); **English** 3; Politics 3; Economics 3; History, Additional Language, Psychology or other science, 2 or 3. JUNIOR YEAR: English History 3; Politics 3; Economics 3; Sociology 2 or 3, and Elective 4 or 5. SENIOR YEAR: American History 3; Politics 3; Economics, or Economics and Sociology 5; Elective 4 or 5.

For details concerning the special courses of study in Commerce, Administration, Statistics, Modern History, Jurisprudence, Practical Philanthropy, offered by the School of Political and Social Science, the separate announcements of that school must be consulted. These special courses are open to juniors and seniors. The special courses outlined are based on the group principle of election. Students may, in consultation with heads of departments, group their elec-

tives with special reference to some definite line of inquiry or in preparation for some definite pursuit.

GENERAL SCIENTIFIC COURSE

FRESHMAN YEAR

German or French*	5 hours
Mathematics	4 hours
Physics	4 hours
English or Drawing†	2 hours

SOPHOMORE YEAR

German or French* 5 hours *or*, German or French 3, and Elective 2 hours	5 hours
English	3 hours
Chemistry	4 hours
Astronomy, Botany, Geology, Mathematics, Mineralogy, Morphology and Physiology, Physics, Zoology	4 hours

JUNIOR YEAR

Astronomy, Botany, Chemistry, Geology, Mathematics, Mineralogy, Morphology and Physiology, Physics, Zoology	10 hours
Elective	5 hours

SENIOR YEAR

Elective	15 hours

No substitute whatever is allowed for any requirement of the Scientific Course, except as indicated in the foot notes.

SPECIAL COURSES IN SCIENCE

The student who wishes, in his undergraduate course, to specialize in some particular line of scientific study, should

*One year of any foreign language work of collegiate grade may be substituted for German or French in either Freshman or Sophomore year but not in both years.

† . If Drawing be here elected the English requirement of Freshman and Sophomore years must be made up in subsequent years.

2. Freshman English may be taken in the Sophomore year, and Sophomore English in the Junior year in lieu of an equivalent amount of required science.

at the beginning of the sophomore year chose from the group of sciences then open to him (Botany, Zoology, Morphology, Geology, Chemistry, Physics, Mathematics, and Astronomy), that subject most directly connected with the branch to which he wishes to give special attention. He will thus be able to pursue his chosen study without interruption through three years of his course, the last of which may, if he so choose, be devoted entirely to his specialty.

Such extreme specialization is not recommended to undergraduate students, it being the opinion of the Faculty of the College of Liberal Arts that a better preparation for a scientific career will be afforded by a broader and more liberal course of study. However, those wishing to specialize in any branch of science are urged to confer freely with the professors with whom they expect to pursue such study.

COURSE IN CIVIL ENGINEERING

FRESHMAN YEAR*

	FIRST SEMESTER	SECOND SEMESTER
German or French	5 hours	5 hours
Mathematics	4 hours	4 hours
Physics	4 hours	4 hours
Drawing	2 hours	2 hours

SOPHOMORE YEAR

English (Freshman)	2 hours	2 hours
Mathematics	4 hours	4 hours
Surveying, Mapping, and Lettering	5 hours	
Descriptive Geometry and Topographical Surveying		4 hours
Chemistry	4 hours	
Railway Curves and Earthwork		2 hours
Geology	2 hours	2 hours
Shop Work		2 hours

*Throughout the Freshman year the Civil Engineering and General Scientific courses are so nearly identical that students of one course may change to the other without serious inconvenience.

JUNIOR YEAR

English (Sophomore)	3 hours	3 hours
Physics	4 hours	2 hours
Analytical and Applied Mechanics	4 hours	3 hours
Graphics	2 hours	4 hours
Theory of Stresses	2 hours	4 hours
Shop	2 hours	

SENIOR YEAR

Limes and Cements	2 hours	
Resistance of Materials		2 hours
Steam Engine	2 hours	
Hydraulics		3 hours
Sanitary Engineering	2 hours	
Water Supply		2 hours
Designing	4 hours	3 hours
Civil Engineering	3 hours	3 hours
Laboratory	2 hours	2 hours
Specifications and Contracts	2 hours	
Engineering Society or Thesis		2 hours

COURSE IN ELECTRICAL ENGINEERING

FRESHMAN YEAR

	FIRST SEMESTER	SECOND SEMESTER
German or French†	5 hours	5 hours
Mathematics	4 hours	5 hours
Physics	4 hours	4 hours
English	2 hours	4 hours
Shop work, optional	1 hour	1 hour

SOPHOMORE YEAR

French or German	5 hours	5 hours
Mathematics	4 hours	4 hours
Physics	3 hours	3 hours
Drawing	2 hours	2 hours
Shop work	2 hours	2 hours

†One year of French and one of German are required. Either may be taken during the Freshman year, to be followed by the other in the Sophomore year.

JUNIOR YEAR

Chemistry	4 hours	4 hours
English	3 hours	3 hours
Physics, (electricity, thermodynamics, and laboratory work)	4 hours	3 hours
Mathematics	4 hours	5 hours
Seminary	1 hour	1 hour

SENIOR YEAR

Draughting	3 hours	3 hours
Steam Engine, and Resistance of Materials	2 hours	2 hours
Electrical Laboratories and Lectures	10 hours	8 hours
Electro-chemistry		2 hours

COURSE IN MINING ENGINEERING

FRESHMAN YEAR

	FIRST SEMESTER	SECOND SEMESTER
French or German	5 hours	5 hours
Mathematics 1 (a, b)	4 hours	
Mathematics 2 (a) and 2 (b)		4 hours
Physics 1, 2	4 hours	4 hours
Drawing	2 hours	2 hours

SOPHOMORE YEAR

Freshman English	2 hours	2 hours
Mathematics 5 (a, b)	4 hours	
Mathematics 6		4 hours
Chemistry 1, 2	4 hours	4 hours
Physics 5 (lectures)	2 hours	
Physics 6 and 3		4 hours
Surveying and Mapping	5 hours	
Shop work		2 hours

JUNIOR YEAR

Sophomore English	3 hours	3 hours
Analytical and Applied Mechanics	4 hours	3 hours

Qualitative Analysis 3, 6(a,b)	2 hours	4 hours
Determinative Mineralogy 15	2 hours	
Geology 3, 7	4 hours	4 hours
Shop Work		2 hours

SENIOR YEAR

Steam Engine	2 hours	
Theory of Stresses	2 hours	
Practical Mining	4 hours	4 hours
Geology 9	4 hours	4 hours
Elective	4 hours	3 hours
Resistance of Materials . . .		2 hours
Hydraulics		3 hours

COURSE IN MINING AND METALLURGY

FRESHMAN YEAR

	FIRST SEMESTER	SECOND SEMESTER
English or Drawing	2 hours	2 hours
French or German	5 hours	5 hours
Mathematics 1 (a, b)	4 hours	
Mathematics 2 (a) and 2 (b) .		4 hours
Physics 1, 2	4 hours	4 hours

SOPHOMORE YEAR

Sophomore English	3 hours	3 hours
French and German	3 hours	3 hours
Chemistry 1, 2	4 hours	4 hours
Geology 5, 6	4 hours	4 hours
Drawing or Freshman English	2 hours	2 hours

JUNIOR YEAR

Geology 3, 7	4 hours	4 hours
Physics 3, 4	3 hours	3 hours
Qualitative Analysis 3 . . .	2 hours	
Qualitative Analysis 5 (a) . .	1 hour	
Qualitative Analysis 6 (a),6(b)		3 hours
Determinative Mineralogy 15	1 hour	1 hour
Elective from Mathematics and Engineering	5 hours	5 hours

SENIOR YEAR

Geology	4 hours	4 hours
Electro-chemistry and Electro-metallurgy, laboratory course, 9, 10	2 hours	2 hours
Quantitative Analysis applied to Mining, laboratory course, 5 (b)	2 hours	
Metallurgical Assaying, laboratory course, 6 b.		2 hours
Physics 5 (lectures)	2 hours	
Physics 6, and Laboratory Work		2 hours
Shop Work	2 hours	2 hours
Elective	4 hours	4 hours

*MILITARY SCIENCE AND TACTICS

Instruction in these branches both theoretical and practical is required of male students in the College of Liberal Arts except such as are specially excused.

PHYSICAL TRAINING

Physical Training for women is required of all women in the Freshman and Sophomore classes. Instruction is provided by the University without expense to students.

REGULAR STUDENTS

All students, except as provided under "unclassified students," must elect one of the courses of study outlined above and follow it as laid down in the order as prescribed, carrying not more than sixteen and not less than fourteen hours of lectures or recitations per week except as required by the programme of their course, or permitted by the Faculty.

UNCLASSIFIED STUDENTS

1. Persons twenty-one years of age, not candidates for a degree, may be admitted as unclassified students without examination, except in English, and may pursue studies at

*For specific requirements and all particulars consult "Military Science" and "Physical Training" in this announcement.

the discretion of the Faculty on the recommendation of the professors in charge of the subjects chosen.

2. Such students of the professional Colleges as are allowed to carry additional work in this College, not candidates for a degree in this College, will be recorded as "unclassified." If students of either of these classes become candidates for a degree in the College of Liberal Arts, they will be required to furnish evidence, by examination or acceptable certificate, of having completed the preparatory requirements.

3. Persons under twenty-one years of age not candidates for a degree, admitted to the College without conditions, whose reasons for irregular work are approved by the Faculty, may be registered as unclassified.

4. Students may be recorded as unclassified, who present thirty credits for admission, but have not completed the *required* preparatory work. They will be required to make up their deficiencies without delay, and when the deficiencies have been made up they will be transferred to the list of candidates for a degree.

Unclassified students are subject to the same requirements as regular students as to amount of work to be carried, examinations, and scholarship.

COMBINED LIBERAL ARTS AND PROFESSIONAL COURSES

COMBINED LIBERAL ARTS AND LAW COURSE

Students of the College of Liberal Arts who have completed their junior year and are entitled to senior standing at the beginning of the University year may be enrolled in the College of Law and receive credit for one year's time of law study while completing their senior year in the College of Liberal Arts, by complying with the following conditions: They must schedule for five hours a week in the College of Law in the subjects of the first year, given throughout the year at 9 o'clock; and for five hours of prescribed electives and five hours of free electives in the College of Liberal Arts. The five hours of prescribed electives must be courses in the College of Liberal Arts approved by a joint committee of the College of Liberal Arts and the College of

Law from the group of subjects embracing Political and Social Science, including political and institutional history. Students thus scheduled and earning credit for Elements of Jurisprudence, International Law, and Constitutional Law in the College of Liberal Arts are excused from Elementary Law, International Law and Constitutional Law, except Constitutional Limitations, as given in the College of Law, and the grades made by students in such subjects in the College of Liberal Arts will be accepted as credits in the College of Law. Students of this course must, however, with the exception of the absolute equivalents above enumerated, pass examination in all the subjects of the law course prior to graduation. It is further provided that the student who has gained a time equivalent of ten semester hours by carrying extra work during his second and third years, or by attendance upon summer sessions of the University, may schedule for ten hours of Law and five hours of Liberal Arts subject to the rules of the University governing permission to carry extra work. The ten semester hours of credit allowed in the College of Liberal Arts for work done in the College of Law will be granted only to those who have registered in the Combined Course and conformed to its conditions.

Students in the College of Law not candidates for a Liberal Arts degree may take work in the College of Liberal Arts not to exceed five hours per week so long as they maintain a good standing in their law studies and do this elected work to the satisfaction of the professors in charge.

COMBINED COURSE IN THE COLLEGE OF LIBERAL ARTS (SCIENTIFIC COURSE) AND THE COLLEGES OF MEDICINE AND HOMŒOPATHIC MEDICINE

First Year	*Second Year*
German—5.	German—3.
Mathematics—4.	English—3.
Physics—4.	Chemistry—4.
English or Drawing*—2.	Zoology—4.
	Animal Physiology—3.

Third Year

Botany—4.	Animal Morphology (adv.)—4.
Chemistry—2.	Elective in College of LiberalArts—5.

Fourth Year

Medical work exclusively.

Fifth Year

Medical work exclusively.

Sixth Year

Medical work exclusively.

Seventh Year

French—10 semester hours.
Elective in College of Liberal Arts—10 semester hours.

It is deemed possible for students of marked ability to complete this course in six years by taking one year's work in French and one year's work in an elective in the College of Liberal Arts, in addition to the medical work in the fifth and sixth years of the combined course, or where practicable.

COMBINED COURSE IN THE COLLEGE OF LIBERAL ARTS (SCIENTIFIC COURSE) AND THE COLLEGE OF DENTISTRY

First Year

German—5.
Mathematics—4.
Physics—4.
English or Drawing*—2.

Second Year

German—3.
English—3.
Chemistry—4.
Zoology—4.
Animal Physiology—3.

Third Year

Botany—4.
Chemistry—2.
Animal Morphology (adv.)—4.
Elective in the College of Liberal Arts—5.

Fourth Year

In Dental College.
French—10 semester hours in the College of Liberal Arts.

Fifth Year

In Dental College.
Elective in the College of Liberal Arts—10 semester hours.

Sixth Year

In Dental College.

It is possible for students to take French, ten hours, during the fourth year, and an elective of ten hours in the fifth year in the College of Liberal Arts, while pursuing the work in the College of Dentistry. This is deemed feasible, due to credits allowed by the College of Dentistry for work done in the first three years in the College of Liberal Arts.

COURSE PREPARATORY TO THE STUDY OF THEOLOGY

First and Second Years

The regular Classical Course.

*Conditions as in General Scientific Course.

First Year	*Second Year*
Plato—3 (Seneca—2)	New Testament Greek—3
Psychology—3	History of Philosophy—3
Logic and Ethics—2	Sociology—3
Economics—3	Elective—6
Elective—5	

BACCALAUREATE DEGREES

For each of the courses of study leading to a bachelor's degree four years' work is required.

On completion of the regular courses, or of the special courses approved by the Faculty, the following degrees are conferred:

Bachelor of Arts upon those who complete the Classical course.

Bachelor of Philosophy upon those who complete the Philosophical course.

Bachelor of Science upon those who complete the General Scientific Course, or either of the Engineering or Mining courses, or a special course in science which has previously been approved by the Faculty.

The degree of Bachelor of Didactics is conferred upon *graduates* in the regular courses who have completed the required work in pedagogy and can show proof of two years' successful teaching after graduation.

SPECIAL CERTIFICATES IN GERMAN, FRENCH, AND ENGLISH

Special certificates as to scholarship in German, in French, or in English will be granted under the authority of the Faculty of the College of Liberal Arts on the following conditions:

1. They shall be issued to students of this University on or after graduation only.
2. They shall be in the nature of an authorized guarantee as to scholarship in German, in French, or in English.
3. They shall be issued only after *at least* three years of full work (to represent *five* hours of lectures and recitations a week or an equivalent) in one of these subjects.
4. Candidates must pass a final examination in the subject ni which the certificate is desired.

5. The examination must be conducted by the professor in charge of the subject, assisted by such other instructors as may be agreed upon by him and the President of the University.

6. These certificates will be signed by the President and by the professor immediately concerned.

PROFESSIONAL CERTIFICATES IN PEDAGOGY

The University will grant the certificates named and described below on the following general conditions:

1. An average standing of 8½ must be attained in all subjects.

2. The candidate must give such evidence of superior ability in his work as will, in the judgment of the Faculty, entitle him to a recommendation as a teacher or supervisor of schools. It is distinctly understood that not all work which may count towards a degree is necessarily sufficient to count towards these certificates.

I. SUPERVISOR'S CERTIFICATES

The University will issue a University supervisor's certificate to each student who includes in his course for his baccalaureate degree the work designated in this paragraph. In issuing this certificate, the University gives its official recommendation to the recipient, in view of the work which he has done during his University course, as being a person suitable to engage in the work of organizing and conducting graded schools.

The requirements are:

1. General Psychology, six semester hours.

2. Courses 1 (*2*), 3 (*4*), 5 (*6*), 7 (*8*), 11 (*12*), and 13 in Pedagogy, aggregating twenty-four semester hours.

3. General knowledge. Additional work sufficient to meet the requirements for graduation from one of the courses in the College of Liberal Arts.

II. TEACHER'S CERTIFICATE

The University will issue a teacher's certificate to each student who includes in his course for his baccalaureate degree the work designated in this paragraph. In issuing this certificate the University gives its official recommendation

to the recipient, in view of the work which he has done during his University course, as being a person suitable to engage in the public school service. The requirements are:

1. Special knowledge.

(a) The student must secure a certificate of special proficiency in one of the subjects in which the University grants such certificates; *or*

(b) He must complete an amount of work of not less than twenty-four semester hours in the aggregate in a subject or group of allied subjects, which he expects to teach, and for which the University grants no special certificate.

The special subject required, and the candidate's proficiency will be determined by the head of the department in which the major part of the work is done.

2. Professional knowledge. The student must complete the following work in the departments of Philosophy and Pedagogy:

(a) Two semesters of three hours a week in Psychology; and

(b) Six hours a week for a year (twelve semester hours) in Pedagogy, including the Course in Child Study, and the course in the Principles of Education. The remainder of the pedagogical work shall be selected from courses 3 (*4*), 5 (*6*), 7 (*8*).

OUTLINE OF THE PLAN OF INSTRUCTION

NOTE. *Additional courses in almost all departments are offered in the Summer Session. The Announcement of the Summer Session will be sent on application to the President of the University.*

SANSKRIT

PROFESSOR POTTER

The courses in Sanskrit are intended to afford a general introduction to Indo-European Comparative Grammar and to lay the foundation for future reading in the literature and philosophy of the ancient Hindus.

For additional courses in Indo-European Grammar see Greek, Course 35 (*36*); Latin, Course 35; German, Courses 11–16, 19; Scandinavian, Courses 9 (*10*), 13 (*14*), 17 (*18*), 19 (*20*); English, Courses 87 (*88*), 79 (*80*), 81, 82, 73.

*1. Sanskrit Grammar and the reading of the easy selections from the Nala. Lectures on Sanskrit Phonology.

First Semester; Tu., Th.

2. Introduction to the Veda. Lectures on Hindu history and literature.

Second semester; Tu., Th.

A supplementary reading course for the purpose of drill in vocabulary and grammatical forms is offered in the Summer Session.

GREEK LANGUAGE AND LITERATURE

PROFESSOR FAIRBANKS; PROFESSOR CALL

The first two courses in Greek are intended to give the student an accurate knowledge of forms, syntax, and vocabulary, such that in the more advanced courses he can read

* Courses with odd numbers are given in the first semester, those with even numbers in the second semester. Where a course runs through the year it receives a double number, e. g. 1, (2); the whole course is designated in the calendar by the first number, but on the registrar's books each half of the course is designated by its own number. Courses not to be given in 1903–1904 are put in brackets.

with comparative ease and appreciate the character of the literature he is studying. While the first aim of all the work in the department is an accurate knowledge of the Greek language, it is not treated as a dead language, and every student is taught to feel that this work brings him into real contact with a people whose thought and literature and art have inspired much of what is best in our own civilization.

A. ELEMENTARY COURSES

Courses 5 to 12 are open to those who have completed course 3 (*4*) or its equivalent.

1 (*2*). BEGINNING GREEK—A course in beginning Greek is offered to students who desire by a special effort to acquire in one year the ability to read simple Attic prose. Goodwin's *Greek Grammar* and White's *First Greek Book* are used in the first semester, and during the second semester three books of Xenophon's *Anabasis* are read. Professor CALL.

Daily at 11, throughout the year.

3 (*4*). XENOPHON; PLATO; HOMER—During the first four weeks the work in Xenophon will be continued, and the principles of grammar reviewed. Plato's *Apology* and selections from his other writings occupy the remainder of the first semester. In the second semester Homer's *Odyssey* is read by the class, and lectures are given on Homeric times and on the character of the Greek epic. Professors CALL and FAIRBANKS.

Daily at 10, throughout the year.

5 (*6*). THE GREEK ORATORS—First semester: The earlier Greek orators; selections are read by the class and reports are given on orations which are not read in class; lectures on the development of Greek oratory. Second semester: Demosthenes; the class reads the *Philippics* and the *Oration on the Crown* and individual members report on other orations. The special aim of the course is to introduce the class to the spirit of Greek oratory, and to the technical methods of which it made use. Professor FAIRBANKS.

Mon., Wed., Fri., at 8, throughout the year.

NOTE: *This course is recommended to students who are*

also taking public speaking 9. A course in the private orations of Demosthenes is offered in the summer session.

7 (*8*). GREEK DRAMA, I.—ÆSCHYLUS, PROMETHEUS BOUND; SOPHOCLES, ANTIGONE; EURIPIDES, ALCESTIS—With this course are required supplementary readings from other tragedies, and reports on the origin, literary form, and representation of Greek tragedy. Professor CALL.

Mon., Wed., Fri., at 8, throughout the year.

[9. PLATO—The *Gorgias;* selection from other dialogues. First semester; Mon., Wed., Fri., at 10.]

10. TEACHER'S COURSE IN HOMER—The class reads selections from the Iliad which give in outline the whole story of the epic. Special attention is given to questions of language, metre, etc., which arise in high school work. Professor CALL.

Second semester; Mon., Wed., Fri., at 10.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

[11. LUCIAN—Selected dialogues. Professor FAIRBANKS. First semester, two hours a week.]

[12. NEW TESTAMENT GREEK—A careful study of biblical Greek from the philological standpoint. Professor CALL. Three hours a week.]

14. GREEK LITERATURE—An outline of the subject intended both for Greek students and for students not studying Greek. Professor CALL.

Two hours a week, second semester.

17 (*18*). GREEK PROSE COMPOSITION—A course intended to supplement the work in courses 5, 7, 9, and 11. Professor CALL.

One hour a week, throughout the year.

19 (*20*). GREEK DRAMA, II: SOPHOCLES—The entire seven plays are read with care; lectures on Greek metres, and on the historical development of Greek tragedy accompanying the reading; and students are expected to prepare one paper each semester on a subject connected with their work. Professor CALL.

Three hours a week, throughout the year.

C. COURSES PRIMARILY FOR GRADUATES

[31 (*32*). GREEK DRAMA, III: ARISTOPHANES—A study of the extant comedies of Aristophanes, with special reference to the light they throw on the different phases of Greek life. Several comedies are read by the class together, and the remainder are made the subject of reports by individuals. Each member of the class is assigned a topic on which he prepares a careful paper embodying the results of his own research. Professor FAIRBANKS.

Two hours a week, and an additional hour at the pleasure of the instructor.]

[33 (*34*). PINDAR AND THE LYRIC POETS—The more important fragments of lyric poetry are read, and the extant poems of Pindar are made the subject of special study. Professor CALL.

Two hours a week throughout the year.]

Courses 31 and 33 were given in 1902–1903 and will be omitted in 1903–1904.

35 (*36*). GREEK GRAMMAR: SOUNDS AND INFLECTIONS—The course corresponds in aim and method to the course in Latin grammar (Latin 35). Professor POTTER.

One hour a week, throughout the year.

A class in the Greek New Testament will be organized by Professor Fairbanks, and all students of Greek are urged to join it. The class will meet once a week, and no registration is required. The writings of Luke will be studied in 1903–1904.

A Greek Club, composed of instructors and graduate students, has met once a fortnight at the house of an instructor. During the present year the writings of Aeschylus have been read and dis ussed by the club.

The Lowden prizes in Greek of $15 and $10 are given on the basis of a competitive examination held early in May. The examination covers the ground of the first two years' work in Greek.

LATIN LANGUAGE AND LITERATURE

PROFESSOR CURRIER; PROFESSOR POTTER, MISS HUGHES, MISS EDDY, MISS PAINE

A. ELEMENTARY COURSES

1 (*2*). CÆSAR—Gallic War. Miss PAINE.

3 (*4*). CICERO—Selected Orations. Miss HUGHES, Miss PAINE.

5 (*6*). VERGIL—Æneid with a course in Mythology. Miss HUGHES, Miss EDDY.

The above courses are offered in the interest of students deficient in preparatory requirements. (See footnotes on pp. 72, and 87.)

7 (*8*). LIVY, CICERO, AND TERENCE — First semester: Livy, selections from Books I, XXI, and XXII. Second semester: Cicero, *De Senectute*, or *De Amicitia*, or *Selected Letters;* Terence, *Phormio;* Outline of Roman Literature. Grammar, writing Latin, and sight reading during the year. Those who show marked proficiency in writing Latin during the first semester are allowed an option of easy Latin, Cicero and Aulus Gellius, to be read under the direction of the instructor during the rest of the year. Professor POTTER and Miss HUGHES.

Throughout the year; Mon., Wed., Fri., at 8:00, 10:00, 11:00 and 1:30.

9 (*10*). CICERO AND HORACE—Cicero, *Tusculan Disputations*, Horace, *Odes*, *Satires*, and *Epistles*. These courses are mainly occupied with the literary side of the authors studied. Professor CURRIER.

Prerequisite, course 7 (*8*).

Mon., Wed., Fri., at 9:00; throughout the year.

11 (*12*). PLINY AND TACITUS—Selected Letters of Pliny. Tacitus, *Germania* and *Agricola*. This course is principally literary and historical. As much attention is given to the Latinity of the Silver Age as is needful for the understanding and appreciation of the authors. Professor FAIRBANKS.

Prerequiste, course 7 (*8*).

Tu., Th., at 9:00; throughout the year.

P. COURSES FOR GRADUATES AND UNDERGRADUATES

13 (*14*). CICERO, QUINTILIAN, AND TACITUS—Cicero, *De Oratore*. Quintilian, Books X and XII. Tacitus, *De Oratoribus*. Particular attention will be paid to literary criticism as exemplified in these authors. Professor CURRIER.

Prerequisite, course 9 or 11.

Tu., Th., at 8:00; 1903–1904.

[15 (*16*). TACITUS, AND SENECA—Tacitus, selections from the Annals and Histories. Seneca, *Morals and Letters*. Professor CURRIER.

Prerequisite, course 9 or 11.

Tu., Th., at 8:00; 1904–1905.]

[17. PLAUTUS—In this course the metres are carefully studied and some attention is given to the ante-classical forms and constructions; but as provision is made in other courses for a more systematic study of the language, the attention is directed mainly to the Roman stage, and to contemporary and later Roman playwrights. The *Captivi*, *Trinummus*, *Menæchmi*, and *Rudens* are read together with selected scenes from the *Amphitruo*, *Miles Gloriosus* and *Mostellaria*. The analysis of several other plays is given in informal lectures. Open to students who have taken or are taking course 13 or 15. Professor POTTER.]

First semester, 1902; Mon., Wed., Fri.

[18. LUCRETIUS AND CATULLUS—The aim is to study Lucretius's art rather than his philosophical system. All the more poetic passages in the *De Rerum Natura* are read. In this course, and also in courses 20–22, considerable attention is given to the structure of the verse, and to the reading of it. Catullus is studied particularly in his relation to his successors in lyric, epic, elegiac, and epigrammatic poetry. Professor POTTER.]

Second semester, 1903; Mon., Wed., Fri.

19. CICERO'S LETTERS—As students before taking this course will have acquired considerable facility in reading Latin, the attention will be directed to the importance of the letters as historical documents. A large number of letters will be studied, selected with reference to the light that they throw on the many sided character of the orator,

and also on the social and political conditions that prevailed at Rome at the end of the Republican period. Open to students who have taken or are taking course 13 or 15. Professor POTTER.

First semester, 1903; Mon., Wed., Fri.

20. LUCAN, *Pharsalia;* SENECA, *Medea.*—The reading of the *Pharsalia* is supplemented with selections from Cæsar's *Civil War* and Suetonius's *Lives.* Lectures introductory to the *Medea* treat of the Roman tragic writers who preceded Seneca, and an effort is made to show the relation of the Roman to the Greek plays. Professor POTTER.

Second semester, 1904; Mon., Wed., Fri.

[21. ELEGIAC POETS—After a brief study of the Greek Elegiac poets the class will read the best elegies of Tibullus, Propertius, and Ovid. The aim of the course is to trace the history of classical elegiac poetry from Callinus to Ovid. Professor POTTER.

First semester; Mon., Wed., Fri.] *Not offered in 1903.*

[22. THE SATIRES OF JUVENAL; THE EPIGRAMS OF MARTIAL—The course will include incidentally a study of the private life and amusements of the Romans as set forth in these poems. Professor POTTER.

Second semester; Mon., Wed., Fri.] *Not offered in 1904.*

23 (*24*). COURSE IN CÆSAR AND VERGIL—This course and the following are intended to meet the needs of prospective Latin teachers and others who wish to gain some familiarity with the methods of original research. The first semester is devoted to syntactical and historical studies covering Cæsar's *Gallic War* (seven books). The work of the second semester consists of literary studies covering Vergil's complete works, but most of the time is devoted to the Æneid. This course presupposes a reading knowledge of these authors. Students expecting to take this course in 1903–1904 are advised to take the reading course in Æneid VII–XII offered during the summer of 1903. Professor POTTER.

Throughout the year; Tu., Th., 1903–1904.

[25 (*26*). CICERO'S CAREER AS AN ORATOR—This course combines original historical investigation covering the period from the time of the Gracchi till the death of Cicero,

with the study of the orations, all of which are considered in chronological order. About thirty of the best speeches will be read by the class. The course includes a special study of the conspiracies of Catiline, based largely on Sallust, Asconius, and Cicero's Letters.] Professor POTTER.

Prerequisite, course 19.

Throughout the year; Tu., Th., 1904–1905.

27 (*28*). CICERO, LIVY, AND OVID — Sight reading of suitable selections. Professor CURRIER.

Throughout the year; one hour a week.

30. TEACHERS' COURSE—This course will combine theory, practice, and investigation. The members of the class will serve as assistant teachers in a beginning Latin class, and investigate assigned problems. It is intended for students who have had no experience in teaching Latin. Prerequisite, course 23 or 25, and general psychology. Professor POTTER.

Five times a week; three hours' credit; second semester.

C. COURSES PRIMARILY FOR GRADUATES

33. EARLY LATIN—Metrical inscriptions and fragments of the poets. Professor POTTER.

First semester; Tu., Th., 1903.

34. PETRONIUS AND LATE LATIN—Apuleius's *Cupid and Psyche*, and selections from the Christian Hymns. On the linguistic side considerable attention will be given to the language of the common people and its relation to the Romance tongues. Professor POTTER.

Second semester; Tu., Th., 1904.

35. HISTORICAL LATIN GRAMMAR: SOUNDS AND INFLECTIONS—This course will be based on the reading of inscriptions selected for their linguistic interest and arranged chronologically from the earliest times to the seventh century, A. D. Each member of the class will be assigned some definite problem to investigate and report upon. Professor POTTER.

First semester; Tu., Th., 1904.

36. LATIN SYNTAX—Introduction to the study of historical syntax. Professor POTTER.

Second semester; Tu., Th., 1905.

The instructors of the Latin department meet fortnightly throughout the year to read in course and discuss informally the entire works of some author or period. Advanced graduate students in Latin will be invited to participate in these meetings.

The department is supplied with mounted photographs and lantern slides for the illustration of lectures.

For courses in Roman Antiquities and Archæology see Courses 31 (*32*), 37 (*38*).

CLASSICAL ARCHÆOLOGY

ART; HISTORY; ANTIQUITIES

NOTE—*With the exception of the courses in Greek History and Archæology (Greek 21 and 37), the following courses do not require a knowledge of Greek. They are open to students in the philosophical course, as well as to those in the classical course.*

[*Greek.* 13 (*14*). OLD GREEK LIFE — Lectures, illustrated with lantern slides, books on art, etc.; collateral reading in English and examinations are required of the students; references are also given to important works in French and German for those who can use these languages. The lectures will treat of the characteristics of the land and the people; the Greek house, dress, and mode of life; marriage and funeral customs; markets and trade generally; the duties of citizens in peace and war, etc. Professor FAIRBANKS.

Two hours a week, throughout the year.]

Latin. 31 (*32*). ROMAN LIFE—This course follows the same lines as the preceding course in Greek life. In general it should be preceded or accompanied by the course in Pliny and Tacitus (Latin 11). Professor FAIRBANKS.

Two hours a week, throughout the year.

Greek. 21 (*22*). GREEK HISTORY—An advanced course in Greek History for students who are prepared to make investigations from the original sources. In 1903–1904 the period of the Persian wars will be made the subject of the work. Professor FAIRBANKS.

Three hours a week, throughout the year.

The introductory courses in Greek and Roman History are found under the Department of History, course 1 (2).

[*Greek.* 23. THE ATHENIAN CONSTITUTION—A study of the constitution of Athens with special reference to its effect on the development of Greek society. The class reads Aristotle's Constitution of Athens (in English translation) and selections from the Politics. Professor FAIRBANKS.

First semester, two hours a week.

This course is intended for students who have had either History 1, or Politics 1.]

[*Greek.* 25. EDUCATION IN GREECE AND ROME—An advanced course in the history of education.

First semester, two hours a week.]

[*Greek.* 27 (*28*). GREEK ART. First semester: Sculpture. The work will be based on Gardner's Handbook of Greek Sculpture. The collections of casts, photographs, and lantern slides are used in connection with each exercise.

Second semester: Architecture, Vase-painting, and the minor arts. The student is made acquainted with the more important extant Greek and Roman buildings, and with the principles of architecture. For the study of vase-painting the library is specially well equipped; the lectures deal both with the development of technique, and with the scenes from Greek mythology and Greek life which are depicted on vases. Professor FAIRBANKS.

Three hours a week, throughout the year.]

Greek. 29 (*30*). GREEK AND ROMAN MYTHOLOGY—Lectures on the origin and transmission of myths; a study of the more important myths on Greece and Rome; and an investigation of the influence of classic myths on later literature, especially English literature. The course is designed for students of literature, as well as for those who may expect to teach either Latin or Greek. A knowledge of Greek is not required for this course. Professor FAIRBANKS.

Two hours a week.

Greek. 37 (*38*). TOPOGRAPHY AND MONUMENTS OF ATHENS—A careful study of Pausanias's account of Athens, supplemented by lectures and the investigation of special topics by individual members of the class. Professor FAIRBANKS.

Two hours a week.

[*Latin.* 37 (*38*). TOPOGRAPHY AND MONUMENTS OF ROME—The course will follow the lines as the preceding. Professor FAIRBANKS.

Two hours a week.]

During the current year (*1902–1903*) a series of illustrated lectures has been given before the University by Professor Fairbanks and Professor Potter on subjects connected with classical art and archæology. A lantern in the lecture room makes the large series of lantern slides available at any time to illustrate the work of the classes.

FRENCH LANGUAGE AND LITERATURE

PROFESSOR VAN STEENDEREN; MR. BUSH, MISS HOLT, MISS SUNIER

A. ELEMENTARY COURSES

1. FIRST YEAR COURSE — Elements of grammar with oral and written exercises to illustrate and apply grammatical rules. Pronunciation. Composition, translation, sight-reading. Grandgent, *Essentials of French Grammar;* Halévy, *L'Abbé Constantin.* MR. BUSH, MISS HOLT, MISS SUNIER.

First semester, five divisions, daily. A sixth division in this course will be formed at the beginning of the second semester.

2. Continuation of Course 1. Grammar continued. Mérimée, *Colomba* or *Quatre Contes;* Alphonse Daudet, *Tartarin de Tarascon.* MR. BUSH, MISS HOLT, MISS SUNIER.

Second semester, five divisions, daily.

3 (*4*). FRENCH NOVELISTS OF THE XIXTH CENTURY — Systematic reading of works from Chateaubriand, Victor Hugo, Prosper Mérimée, Honoré de Balzac, Alphonse Daudet, Emile Zola, Pierre Loti.

The course, which must be taken in the second year of French, aims in the first place to impart ability to read French prose with fluency and to encourage the use of the French language in the class-room. In the second place it aims to give a clear insight into the principles of romanticism, realism, and naturalism, through lectures and the

comparative study of such novels as *Les Misérables*, *Eugénie Grandet*, and *La Débacle*. Reaction from naturalism is discussed. And thirdly it aims to study the characteristics of French prose through the observation of words, idioms, phrase-construction, and style. Professor VAN STEENDEREN, MR. BUSH.

First and second semester; three divisions, Mon., Wed., Fri.

5. SYNTAX, COMPOSITION AND CONVERSATION—A course in the principles of French syntax, aiming to impart ability in the writing and speaking of French on the basis of grammatical understanding. The course includes thorough training in the translation of English into French, and original expression in French, both oral and written. The members of the class will, moreover, be recommended to the American Committee on International Correspondence, which secures to each a correspondent in France. François' *Advanced Composition*; Berlitz, *Méthode 2ème Livre*. It is recommended that this course be taken with course 3 (4). It is required of the candidates for the Teacher's certificate in French. Professor VAN STEENDEREN.

First semester; Tu., Thu.

6. Continuation of course 5. Free composition. Professor VAN STEENDEREN.

Second semester; Tu., Thu.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

7 (8). TWELVE REPRESENTATIVE FRENCH DRAMAS — *Le Cid*, *Les Femmes savantes*, *Le Tartuffe*, *Athalie*, *Zaïre*, *Le Barbier de Séville*, *Hernani*, *Ruy Blas*, *La Question d'Argent*, *Bataille de dames*, *Le Monde où l'on s'ennuie*, *Cyrano de Bergerac* or *L'Aiglon*.

The subject of the French Drama is studied from the standpoint of historical sequence and organic development. Lectures. Reports on assigned topics. Mr. BUSH.

First and second semester; Mon., Wed., Fri.

[9. THE FRENCH NOVEL. This course, which is conducted on seminary plan, begins with the consideration of the relation between the epic and the novel. The instructor analyses the plots of the *Chanson de Roland*, the *Chanson d'Aliscans*, the *Roman de Troie*, and some of the *Romans*

de la Table Ronde. Reports are given on some of the *Fableaux*, on the *Roman de Renart*, and the *Roman de la Rose*. Then the *Heptameron* and Rabelais's *Gargantua et Pantagruel* are briefly considered. Stress is laid on *L'Astrée* of Honoré d'Urfé and its influence on other novelists of the XVIIth century. The class reads Mme. de la Fayette's *La Princesse de Clèves*, and reports are given on Fénelon's *Télémaque* and on novels by Le Sage, Marivaux, and Prévost, on *La Nouvelle Héloïse*, and on *Paul et Virginie.* Professor VAN STEENDEREN.

First semester; Mon., Wed., Fri.

10. Continuation of course 9. The members of the class read and report on the principal novels and short stories of the XIXth century. Morillot's *Le Roman en France depuis 1610* is used as a text-book. Professor VAN STEENDEREN.

Second semester; Mon., Wed., Fri.]

Courses 7, 8 and 9, 10 are given in alternate years. Course 7, 8 will be given in 1903–1904.

C. PRIMARILY FOR GRADUATES

[11. FRENCH LITERATURE IN THE XVITH AND XVIITH CENTURIES. A lecture and reading course with the emphasis on the literature, life, and customs of the XVIIth century. Beginning with a few lectures on the fifteenth century, the course then takes up the spread of the Renaissance to the time of the writers of the Pléiade, whose literary theories and individual works are discussed in detail as the foundation of the literary development of the seventeenth century. Montaigne, Rabelais, writers of *Mémoires* and *Contes* will be taken up separately. The division and breaking down of the second *volée* of the Pléiade are followed to the reforming work of Malherbe. Finally the establishment of *Hôtel de Rambouillet* and the confusion of the beginning of the seventeenth century down to the work of Corneille are considered. Mr. BUSH.

First semester; Mon., Wed.]

[12. Continuation of course 11. Beginning with Corneille, the history of the school of 1660 is traced through its representatives, Boileau, Racine, and Molière. The theories of classicism together with the characteristics and the influence of *Préciosité* are studied. The course includes the

study of works of Descartes, Pascal, Bossuet, La Fontaine, La Rochefoucauld, Fénelon, and others. Mr. BUSH.

Second semester; Mon., Wed.]

13. FRENCH LITERATURE IN THE XVIIIth AND XIXth CENTURIES—The quarrel of the Ancients and the Moderns. Gradual breaking down of the theories of classicism. Literature subservient to the social relations. Social character of the *Lettres persanes* and *L'Esprit des lois*. Influence of the Salons. Sensibility: *Alzire*, *Zaire*, *Manon Lescaut*, *La nouvelle Héloise*, *Paul et Virginie*. Influence of England. Idea of Progress. Literature and Science. Buffon. The Encyclopedists. Naturalism of Rousseau and Diderot. Growth of Individualism. Short revival of classicism. André Chénier. Chateaubriand, Mme de Staël, and the beginnings of the romantic school. Professor VAN STEENDEREN.

First semester; Tu., Thu.

14. Continuation of course 13. The study of the romantic poetry, drama, and novel. Literary cosmopolitism. Local color. Individualism. Sociology and history. Realism. Philosophy and criticism. The Parnassian school of poetry. Naturalism. The social drama. The symbolists Professor VAN STEENDEREN.

Second semester; Tu., Th.

Courses 11, 12 and 13, 14 are given in alternate years. Course 13, 14 will be given in 1903–1904.

15 (*16*). OLD AND MIDDLE FRENCH—A reading course in Old French verse and prose with the emphasis on the philological aspect of the subject. Phonetics, etymology, syntax, versification of Old and Middle French. Paris and Langlois' *Chrestomathie du Moyen Age*. Darmesteter and Hatzfeld's *Le seizième siècle en France*, and works of reference in the library. Professor VAN STEENDEREN.

Throughout the year, Tu., Th.

For special certificates in French see the regulations under the heading "Teacher's Certificates." The courses required are 1, 2; 3, 4; 5, 6, and a choice of *at least* five hours a week for a year from the other courses.

SPANISH LANGUAGE

1. FIRST YEAR COURSE—Elements of Spanish grammar with exercises to illustrate and apply grammatical rules. Edgren, *Spanish Grammar*; Padre Isla, *Historia de Gil Blas de Santillana.* Professor VAN STEENDEREN.

First semester; Mon., Wed., Fri.

2. Continuation of Course 1. Grammar continued. Galdos, *Dona Perfecta;* Moratin, *El si de las ninas.* Professor VAN STEENDEREN.

Second semester; Mon., Wed., Fri.

ITALIAN LANGUAGE

1. FIRST YEAR COURSE—This course aims as far as possible to give a good reading knowledge of the Italian language, combined with some knowledge of the literature. During the first half year Grandgent's *Italian Grammar* will be studied, and the reading will consist of some of the shorter works of Modern Novelists. MR. BUSH.

First semester; Mon., Wed., Fri.

2. Continuation of Course 1. Scartazzini, *La Divina Commedia di Dante Alighieri*, in part. Selections from works of other great Italian classics. Lectures will be given in connection with the reading. MR. BUSH.

Second semester; Mon., Wed., Fri.

GERMAN LANGUAGE AND LITERATURE

PROFESSOR WILSON; ASSISTANT PROFESSORS STURM, EASTMAN, ACTING PROFESSOR FLOM, MR. BRIGGS, AND MISS LORENZ

In the instruction in the German language the first year is spent in laying a broad foundation for the future work. At the beginning of the second year it is expected that students will be able to read the literature with some degree of appreciation, and from this time on the ability to understand and to appreciate the great masterpieces of German literature is the main object in view; at the same time, however, the origin and history of words and the relation that the German language bears to the English tongue, are studied and

explained. Sight translation, translating at hearing, writing from dictation, and conversation as means to a proper *Sprachgefühl*, form a part of the work.

Courses 1 (*2*), 3 (*4*), 5 (*6*), and 7 (*8*), represent first year work, second year work, third year work, and fourth year work respectively, and must be taken in the order of the numerals. Courses 9 to 20 are advanced courses, and may be taken in accordance with the regulations stated later, but applicants for any of these courses are advised to consult the instructors. All the courses in German are given every year except as otherwise indicated.

A. COURSES FOR UNDERGRADUATES

1 (*2*). GRAMMAR AND READING — Thomas's *Practical German Grammar*, with constant practice in writing German. The reading consists of easy plays and tales. These courses represent first year work. Seven sections. Assistant Professors STURM, and EASTMAN, Acting Professor FLOM, Mr. BRIGGS, and Miss LORENZ.

Throughout the year; five times a week.

3 (*4*). LESSING, SCHILLER, GOETHE, AND FREYTAG — Selections from the works of the authors named, with composition. Courses 3 and 4 represent second year work. Four sections. Professor WILSON, and Assistant Professors STURM, and EASTMAN.

Throughout the year; Mon., Wed., Fri.

5. THE GERMAN NOVEL—Some such work as Scheffel's *Ekkehard*, or Freytag's *Soll und Haben*, is read and discussed as a piece of literary art. There is an inquiry into the nature of the German novel, with assigned reading and reports on the development of the novel in Germany. Course 5 represents third year work. Professor WILSON.

First semester; Mon., Wed., Fri., at 11:00.

6. GERMAN LYRICS—This course is intended to give a general idea of the historical development of the German lyric from the sixteenth century to the present. There are lectures on German verse with special reference to the lyric poets. Buchheim's *Deutsche Lyrik*, or von Klenze's *Deutsche Gedichte* is read by the class. Course 6 represents third year work. Professor WILSON.

Second semester; Mon., Wed., Fri., at 11:00.

7. FAUST—Goethe's *Faust, Parts I and II.* The main object of this course is to help the student to the enjoyment of *Faust* as poetry. Careful attention is given to its artistic character as a piece of literature possessing unity. Course 7 represents fourth year work. Professor WILSON.

First semester; Tu., Th., at 11:00.

8. HISTORY OF GERMAN LITERATURE—This course gives a general view of the development of German literature from the earliest times to the present, special attention being paid to the two classic periods of the twelfth and eighteenth centuries. Francke's *History of German Literature as Determined by Social Forces*, or Robertson's *History of German Literature*, is used as guide, but this is supplemented by reports on assigned reading by the students and by lectures by the instructor. Course 8 represents fourth year work. Professor WILSON.

Second semester; Tu., Th., at 11:00.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

9. GERMAN SEMINARY—For the study and discussion of the works of special periods, of literary tendencies, or of other special subjects in the history of German literature. The nature of the work is indicated by the topics that have been studied in previous years, some of which are Goethe's Youth; Goethe's Period of Classical Sympathies; Literary Cooperation of Goethe and Schiller; Goethe's Life and Works; Lessing's Life and Works; Lessing's Attitude toward the ancient Classics; Schiller's *Wallenstein;* Heine's Life and Works. Each member of the Seminar undertakes, under the personal direction of the instructor, the examination of some special phase of the general subject, and makes regular reports upon the results obtained. As the subject varies from year to year, students may elect the course in succession without duplication. Professor WILSON.

First semester; Tu., Th., at 9:00.

10. GERMAN SEMINARY—A continuation of course 9. The work is conducted in the same manner, but a new subject may be taken up. Professor WILSON.

Second semester; Tu., Th., at 9:00.

11. MIDDLE HIGH GERMAN—Bachmann's *Mittelhochdeutsches Lesebuch*, and Paul's *Mittelhochdeutsche Grammatik*. Includes a rapid survey of Middle High German forms, a comparative study of Middle High German and New High German syntax, and yields incidentally through translation into New High German excellent practice in composition. The reading of this semester is largely epic poetry, and is represented by selections from the *Nibelungenlied*, *Gudrun*, *Rosengarten*, *Reinhart Fuchs*, *Alexanderlied*, and from Hartmann von Aue, Wolfram von Eschenbach, and Gottfried von Strassburg. Professor WILSON.

First semester; Tu., Th., at 10:00.

12. MIDDLE HIGH GERMAN—Course 11 is a prerequisite. The reading consists of lyric and didactic poetry and of prose. The larger part of the time, however, is devoted to the lyrics of Walther von der Vogelweide. Professor WILSON.

Second semester; Tu., Th., at 10:00.

[13. OLD HIGH GERMAN PROSE—Attention is given to the historical aspect of the subject. The work is based upon Braune's *Althochdeutsche Grammatik*, Braune's *Althochdeutsches Lesebuch*, Streitberg's *Urgermanische Grammatik*, and Enneccerus's photo-lithographic facsimiles: *Die aeltesten deutschen Sprach-Denkmaeler*. The reading of this semester consists of selections from Tatian's *Evangelienharmonie*, *Benediktiner Regel*, *Isidor*, Notker's translation of *Boethius de consolatione philosophiæ*, and the *Trierer capitulare*. Assistant Professor EASTMAN.

First semester, twice a week; time to be arranged.]

Courses 13 and 14 alternate with courses 15 and 16, and were given in the year 1902–1903, and may be expected again in the year 1904–1905.

[14. OLD HIGH GERMAN POETRY—A continuation of course 13, by which it must be preceded. The following are read: *Hildebrandslied*, *Muspilli*, *Wessobrunner Gebet*, *Merseburger Zaubersprueche*, *Ludwigslied*, and selections from Otfrid's *Evangelienbuch*. Assistant Professor EASTMAN.

Second semester, twice a week; time to be arranged.]

15. OLD LOW GERMAN (Old Saxon)—Introduction to Old Saxon grammar and interpretation of the *Heliand*. Holthausen's *Altsaechsisches Elementarbuch* and Behaghel's edition of the *Heliand*. Assistant Professor EASTMAN.

First semester, twice a week; time to be arranged.

Courses 15 and 16 were given in the year 1901–1902, and may be expected again in 1903–1904.

16. OLD LOW GERMAN (Old Saxon)—A continuation of course 15, which is a prerequisite. Rapid reading of the *Heliand* and of the fragment of the Old Saxon *Genesis* (Braune's edition). Assistant Professor EASTMAN.

Second semester, twice a week; time to be arranged.

17. THE GERMAN ROMANTIC MOVEMENT—Opened with lectures on the general subject, and then follow lectures on the life and earlier works of Tieck, with assigned readings to each student who reports to the class an outline of the ground covered and the results of his study. The works of the Schlegels are taken up in the same manner. Novalis's *Heinrich von Ofterdingen*, *Hymnen an die Nacht*, and *Geistliche Lieder* are read and discussed. After this there are assigned readings in the works of Brentano, Arnim, Kleist, Eichendorff, and Hoffmann. Assistant Professor STURM.

First semester, two hours a week; time to be arranged.

Courses 17 and 18 were given in the year 1901–1902, and may be expected again in 1903–1904.

18. THE GERMAN ROMANTIC MOVEMENT—A continuatioh of course 17, by which it must be preceded. These courses are closed with lectures giving a survey of the movement as a whole, with special reference to its social and literary aspects. Assistant Professor STURM.

Second semester, two hours a week; time to be arranged.

[19. PHONETICS—The principles of sound-formation and sound-change, followed by a detailed study of the phonology of German. This part of the work is based upon Hempl's *German Orthography and Phonology*. Designed to furnish a foundation for work in philology and a practical preparation for those who intend to teach. Assistant Professor STURM.

First semester, two hours a week; time to be arranged.]

This course is offered in alternate years, and was given in the year 1902–1903 and may be expected again in the year 1904–1905.

[20. GERMAN SYNTAX—The syntax of the New High German is studied from the historical and genetic point of view. The works of Erdmann, Behaghel, and Wunderlich are used. Assistant Professor STURM.

Second semester, two hours a week; time to be arranged.]

The course is offered in alternate years, and was given in the year 1902–1903, and may be expected again in the year 1904–1905.

SPECIAL CERTIFICATES IN GERMAN

Special certificates of scholarship in German are granted on or after graduation on conditions set forth elsewhere in this catalogue. The *minimum* amount of work required for admission to examination for snch a certificate is represented by courses 1 to 6, and four courses chosen from 7 to 20.

SCANDINAVIAN LANGUAGES AND LITERATURES

ACTING PROFESSOR FLOM

In the department of Scandinavian it is the aim to give equal attention to the literature and philology of the Northern languages. The courses will be given strictly as outlined below, though if there should be sufficient demand for some course not scheduled, a class may be formed. Course 1 is intended for those students who have no previous knowledge of Scandinavian. It is expected that this course will give the student such a thorough reading knowledge of modern Norse as shall enable him to read the modern literature with facility. Courses are offered to suit the needs of students of Scandinavian parentage who have a fair knowledge of a Scandinavian language, but wish to pursue in class a more systematic study of the literature. For such students three courses are offered: one in modern Norse literature 7 (*8*), one in Danish literature 5 (*6*), and one in Swedish literature 3 (*4*). The last will be preceded by a short course in Swedish grammar. Courses under B are intended especially for graduates, but may be taken

by advanced students of sufficient preparation. In these courses, (excepting course 11 (*12*) and 15 (*16*), as well as those coming under C, open to graduates only, the linguistic side of the study is stressed.

A. ELEMENTARY COURSES

1 (*2*). NORSE — Elementary course—Groth's *Dano-Norwegian Grammar*, followed by class reading of Björnson's *Smaastykker*, *En Glad Gut*, and *Synnøve Solbakken*, Jonas Lie's *Fortællinger og Skildringer fra Norge*, and Ibsen's *Et Dukkehjem*. Exercises in Composition based on Platon's *Exemplarsamling*. This course will also serve as an introduction to Norse literature. May be taken by graduate students as part of requirements for a degree.

Three times a week, throughout the year; Mon. and Wed., at 11:10, and Th., at 2:30. Hours may be arranged to suit those concerned.

3 (*4*). SWEDISH LITERATURE OF THE XIXTH CENTURY, with an introductory course in Swedish Grammar. Poestion's *Lehrbuch der Schwedischen Sprache* is used. Reading in class of Tegnér's *Frithiofs Saga*, Runeberg's *Fänrik Ståls Sägner*, and Selma Lagerlöf's *Drottningar i Kungahälla* and *Legender*. The reading in the second semester is supplemented by a course of fourteen lectures on the history of Swedish literature. In place of *Drottningar* was read in 1903, Lagerlöf's *Jerusalem I*, *I Dalarne*. May be taken by graduate students as part of requirements for a degree.

Two hours a week. Given in 1902–1903. Will be given in 1903–1904.

5 (*6*). DANISH LITERATURE—First semester: Two comedies from Holberg, Oehlenschlaeger's *Axel og Valborg*, *Hakon Jarl*, and *Aladdin*. Second Semester: Hertz's *Svend Dyrings Huus* and selections from Grundtvig, Hauch, and Hostrup. Lectures. Prerequisite, course 1 or an equivalent.

Two hours a week.

7 (*8*). NORSE LITERATURE SINCE 1814—Lectures and class reading of masterpieces. First semester: Björnson's *Arne* and *En Fallit*. Collateral reading: Kielland's *Skipper Worse*. Second semester: Ibsen's *Brand*, *Peer Gynt*, and

Samfundets Stötter. Collateral: *Kongsemnern*, and Boyeson's *A Commentary on the Writings of Henrik Ibsen.*

Two hours a week; Wed., Fri., at 8:10. May be given in 1903–1904. In place of this course was given in 1902-1903 a course in six dramas of Ibsen. The following dramas were read and interpreted: *Catilina, Kongsemnerne, Brand, Peer Gynt, En Folkefiende* and *John Gabriel Borkman.* Some attention was given to Ibsen's dramatic method. Reports by members of the class.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

9 (*10*). OLD NORSE AND OLD ICELANDIC—Elementary course. Lectures and recitations. The aim of this course is to equip the student with a good vocabulary, and to acquaint him with the peculiarities of Old Norse phonology, inflexion, and syntax, so as to enable him to read the old prose literature and to use the language for the purpose of comparative study within the Germanic group of languages. Lectures on the relation of Old Norse to East and West Germanic. Sweet's *Icelandic Primer* will be taken first and this will be followed by Kahle's *Altisländisches Elementarbuch.* Phonological exercises in Old Norse, taken up comparatively, will form a part of the work. In the Spring *Gunnlaugssaga Ormstungu* (ed. Mogk.), and *Fridthjofs Saga* (ed. Larssen) will be read.

Throughout the year; two hours a week.

11 (*12*). OLD ICELANDIC PROSE LITERATURE—The *Laxdælasaga* in the edition of Kâlund will be read the first semester. The second semester will be devoted to a careful study of the *Völsungasaga* along with which parts of the Old Norse *Didrekssaga* will be read. It is desirable for this course, though not necessary, that the student should have a general knowledge of the Niebelungenlied.

Throughout the year; two hours a week.

The latter half of this course was given in 1903. May be given in 1903-04.

14. HISTORY OF THE SCANDINAVIAN LANGUAGES—Lectures in connection with Noreen's *Geschichte der Nordischen Sprachen* in Paul's "Grundriss der germanischen Philologie." Although this course is elementary and may be taken without any previous knowledge of Germanic philology, a

knowledge of one of the Scandinavian languages and of German and Gothic is desirable. Courses 9 (*10*) should precede.

Second semester; two hours a week.

This course will be given in 1904.

C. COURSES PRIMARILY FOR GRADUATES

15 (*16*). OLD NORSE. THE ELDER EDDA—This course may be taken only by those who have mastered the elements of the language. The first semester will be given to the reading and interpretation of the mythological lays of the Elder Edda. In the second semester the heroic lays will be taken up, with a study of Eddic metre. Lectures on Edda criticism. Jonsson's *Eddalieder* will be used, together with Gering's *Glossar zu den Liedern der Edda*, and *Vollständiges Wörterbuch zu den Liedern der Edda* In connection with this course lectures will be given on Old Norse literature. Prerequisite, course 9 (*10*).

Two hours a week, M., W., at 9:00.

This course which was given in 1901-1902 and 1902-1903 will probably not be given again before 1905-1906.

[17 (*18*). OLD DANISH AND OLD SWEDISH—Lectures and exercises. This course will begin with lectures on the relation of East to West Scandinavian and on early dialect differentiation in Old Danish. First semester: A, Old Danish, Brandt's *Gammeldansk Læsebog*, and Dahlerup's *Det danske Sprogs Historie*. Second semester: B, Old Swedish, Noreen's *Altschwedisches Lesebuch*. Prerequisite, for A, a knowledge of Danish; for B, a knowledge of Swedish in the modern period, or for either course 9 (*10*).

Throughout the year; two hours a week.]

May be given in 1903-1904.

19 (*20*). SCANDINAVIAN INFLUENCE ON ENGLISH—Introductory lectures on early Norse and Danish settlements will be followed by a study of the characteristic of Old Northumbrian as differing from West Saxon. Methods of investigation, loan word tests, Scandinavian elements in Old and Middle English and Modern English dialects. The dialectal provenience of the loan-words. A part of the spring term

will be given to the study of English influence on Scandinavian, especially Old Norse, Modern Norse, and Danish. Prerequisite, a knowledge of German, Old Norse, and Old English.

Throughout the year; two hours a week. Not given in 1903–1904.

In addition to above courses any of the courses intended primarily for undergraduates may be taken by graduate students as part of the requirements for a degree.

The following Norse, Swedish, Danish and Icelandic publications are accessible to students in the University: *Arkiv för Nordisk Filologi*, *Aarböger for nordisk Oldkyndighed og Historie* (1836–1900), the publications of the *Samfund til Udgivelse af gammel nordisk Literatur*, *The Islendinga Sögur* (*Reykjavik*), *Dania*, *Nordisk Tidskrift* (*Stockholm*), *Samtiden*, *Tilskueren*, *Eimreidin*, and *Historisk Tidsskrift* (*Kristiana*), *Norvegia*.

ENGLISH

PROFESSOR ANSLEY; ASSISTANT PROFESSOR YOUNG, DR. HAGEN, MR. BREWER, MR. SLOAN, MR. HUNT, MR. BOWMAN.

Candidates for baccalaureate degrees are required to complete courses 1 and 21. Five divisions of course 1 begin with the first semester, and one division begins with the second semester. The five divisions of course 21 begin with the first semester.

Unless by special arrangement at the beginning, credit in any course is given only upon satisfactory completion of that course. This rule applies to courses which continue throughout the year as well as to semester courses.

Special certificates of scholarship in English are granted upon conditions explained under the heading "Teachers' Certificates." Information as to acceptable combinations of courses will be given upon request.

(1) COMPOSITION AND RHETORIC

1 (*2*). CONSTRUCTIVE RHETORIC—Practice in the construction of effective English prose, with observation of the principles involved. Lectures, criticism of written exercises, and studies in the work of representative modern writers.

Required of all freshmen. MR. HUNT and MR. BOWMAN.

Throughout the year; two hours a week.

3, (4). THE ESSAY—Practice in expository writing and in criticism of essays. Open to students who have completed course 1. MR. SLOAN.

Throughout the year; two hours a week.

7. THE SHORT STORY—Studies in descriptive and narrative prose, and in the structure of the short story. Typical stories by Poe, Hawthorne, and their successors are considered in detail. Admission, by consent of the instructor. Mr. HUNT.

First semester; two hours a week.

8. THE SHORT STORY—Practice in descriptive and narrative writing, the short story being the form selected. Criticism by students and instructor. Admission, by consent of the instructor. Mr. HUNT.

Second semester; two hours a week.

11. POETICS—Studies in the technique of verse. Mr. BOWMAN.

First semester; two hours a week.

15. THE NEWSPAPER—Lectures upon some details in the work of newspaper making, with practice in writing for the press. What news is, and how it should be put in form for publication; the writing of editorials; the review of books and the drama; proof reading; the business department. Mr. BREWER.

First semester; two hours a week.

16. THE BOOK—Studies in the making and the care of books. Manuscripts and early libraries; the invention of movable types; the work of the best printers, from Gutenberg to William Morris; modern methods in printing and publishing. Mr. BREWER.

Second semester; two hours a week.

(2) LITERATURE

21 (22). ENGLISH LITERATURE — The development of English literature from Chaucer to Browning. Typical works of representative writers are studied as carefully as time permits; and an attempt is made to recognize the more important phases in the evolution of English verse and prose.

The work of students in this course is commonly presented in writing, and attention is given to form as well as to substance. Required of all sophomores. Mr. SLOAN, Mr. HUNT, and Mr. BOWMAN.

Throughout the year; three hours a week.

[23. AMERICAN LITERATURE (PROSE)—A study of representative prose writers of America, including Irving, Cooper, Poe, Hawthorne, Emerson, Lowell, and Holmes. Dr. HAGEN.

First semester; two hours a week.]

Not offered in 1903-1904.

[24. AMERICAN LITERATURE (POETRY)—A study of representative poets of America, including Bryant, Poe, Longfellow, Whittier, Lowell, Holmes, and Whitman. Dr. HAGEN.

Second semester; two hours a week.]

Not offered in 1903-1904.

29. THE ENGLISH DRAMA BEFORE SHAKESPEARE—The selections in Manly's *Specimens of the Pre-Shakespearean Drama* are made the basis of this course. In studying the Miracle Plays, each play is compared with corresponding plays, whether in other cycles or isolated. The Moralities and the Interludes are studied in their relations to earlier and later dramatic forms. The early renaissance plays give occasion for a study of classical influence, special attention being given to Seneca. Dr. HAGEN.

First semester; two hours a week.

31 (*32*). SHAKESPEARE—Some elements of literary art exemplified in the plays of Shakespeare. Three representative tragedies are studied in detail. Professor ANSLEY.

Throughout the year; three hours a week.

38. ENGLISH AND SCOTTISH BALLADS—Lectures on the history, the nature, and the influence of ballad poetry, with reading and interpretation of selected ballads. Dr. HAGEN.

Second semester; two hours a week.

43. MILTON—An introduction to the study of the literary work of John Milton. The course includes a brief survey of the life and times of Milton and discussion of the qualities of his writings. His lyrical poems and specimens of his prose are studied in detail. Among the works thus

considered are *L'Allegro, Il Penseroso, Comus, Lycidas,* and *Areopagitica.* Assistant Professor YOUNG.

First semester; three hours a week.

44. MILTON—A detailed study of *Paradise Lost,* with discussion of the nature of epic poetry in general. Assistant Professor YOUNG.

Second semester; three hours a week.

47. EIGHTEENTH CENTURY PROSE—A study of representative works of Addison, Steele, Swift, Goldsmith, Johnson, and Burke. Open to students who have completed course 1. Mr. SLOAN.

First semester; two hours a week.

48. NINETEENTH CENTURY PROSE—A study of representative works of Macaulay, De Quincey, Carlyle, Lamb, Arnold, and Newman. Open to students who have completed course 1. Mr. SLOAN.

Second semester; two hours a week.

[49. THE ROMANTIC MOVEMENT.]

Not offered in 1903–1904.

[55. VICTORIAN LITERATURE.]

Not offered in 1903–1904.

61. TENNYSON—An introduction to the poems of Alfred Tennyson, with detailed study of *In Memoriam* and some of the shorter poems. Assistant Professor YOUNG.

First semester; three hours a week.

62. TENNYSON—A detailed study of the *Idylls of the King.* Assistant Professor YOUNG.

Second semester; three hours a week.

63 (*64*). BROWNING—Studies in the poetry of Robert Browning. This course must be preceded or accompanied by course 31. Professor ANSLEY.

Throughout the year; two hours a week.

65. MORRIS—A study of the work of William Morris as a writer and as a craftsman; of his ideals; and of his influence, especially as seen in the industrial art movement. Professor ANSLEY.

First semester; two hours a week.

66. CRITICISM—Some principles accepted or conjectured in literary criticism and in the study of literature as an art. This course must be preceded by course 31. Professor ANSLEY.

Second semester; two hours a week.

68. TEACHERS' COURSE—Lectures upon the teaching of English in secondary schools. A course for students who intend to teach the English language and literature. Assistant Professor YOUNG.

Second semester; three hours a week.

69 (*70*). LITERARY LANDMARKS OF ENGLAND — Occasional public lectures upon the Canterbury Pilgrimage, Ely Cathedral, Stratford-on-Avon, The Scott Country, The English Lakes, Westminster Abbey, and kindred subjects of interest to students of literature. All these lectures are fully illustrated by the stereopticon. Dr. GILCHRIST.

(3) PHILOLOGY

[73. HISTORICAL ENGLISH GRAMMAR — Lectures, reports, and discussions. The main topics in the history of the English language are considered: sources of the vocabulary; characteristics of native and foreign elements; development in the meaning of words; changes in pronunciation and inflections. Dr. HAGEN.

First semester; two hours a week.]

Not offered in 1903–1904.

75 (*76*). MIDDLE ENGLISH—An introduction to Middle English, with readings in Chaucer's *Canterbury Tales*, Langland's *Piers the Plowman*, and other selections. Dr. HAGEN.

Throughout the year; two hours a week.

79 (*80*). OLD ENGLISH—An elementary course in Old English grammar, with study of representative prose and poetry. Dr. HAGEN.

Throughout the year; three hours a week.

81 (*82*). ADVANCED OLD ENGLISH—In this course *Beowulf* is read and the chief problems in *Beowulf* criticism are considered: the growth of the epic and its present form; its historical and mythical elements; its original home, etc. Dr. HAGEN.

Throughout the year; two hours a week.

[85. ANGLO-SAXON LAW AND CUSTOMS.]

Not offered in 1903-1904.

87 (*88*). GOTHIC—An introduction to the Gothic language. This is a course in the study of Gothic phonology, morphology, and syntax, with constant reference to other Germanic dialects. The following books are used: Wright, *A Primer of the Gothic Language*, second edition, Oxford, 1900, or Streitberg, *Gotsiches Elementarbuch*, Heidelberg, 1896; Stamm-Heyne, *Ulfilas*, 10. Aufl., Paderborn, 1902; Uhlenbeck, *Etymologisches Wörterbuch der gotischen Sprache*, 2, Aufl., Amsterdam, 1900; Streitberg, *Urgermanische Grammatik*, Heidelberg, 1896. Open to students who have a knowledge of Old English or of any other early Germanic dialect. Dr. HAGEN.

Throughout the year; two hours a week.

PUBLIC SPEAKING

PROFESSOR GORDON; MISS EVERTS.

The courses in this subject naturally divide themselves into two lines of work; one line looking to debate or oratory as an end, and the other to the interpretation of literature as an end. Courses 1 (*2*), 3 (*4*), 16 and 18 are fundamental to both lines of work. No student will be admitted to advanced courses of work who has not taken or is not taking one of these courses or its equivalent. Students making a special study of debate are advised to take a fundamental course and courses 7 (*8*), and 16. Students making a special study of oratory are advised to take a fundamental course and courses 5 (*6*), 9 and 16. Courses 1 (*2*), 3 (*4*), and 18 are designed for students who wish to study the vocal interpretation of literature. Course 7 (*8*), is designed for students desiring to pursue special lines of study upon approved topics in debate and oratory. Students who have had no work in Public Speaking may elect courses 1 (*2*), or 3 (*4*), in the first semester, and 16 or 18 in the second semester.

A. ELEMENTARY COURSE.

1 (*2*). PUBLIC SPEAKING AS AN ART—This course is general, seeking to prepare the student for the special forms of

public speaking. Each student is examined with reference to his individual needs and an effort is made to adapt the work to such needs. Miss EVERTS and Professor GORDON.

Throughout the year; two hours a week.

B. COURSES FOR GRADUATES AND UNDERGRADUATES.

3 (*4*). LITERARY INTERPRETATION—The lyric, epic, dramatic, and oratoric forms are studied in their relation to public speaking.

Throughout the year; two hours a week.

[*This course will not be offered in 1903-1904.*]

5 (*6*). PUBLIC ADDRESS—The preparation and presentation of an argumeut as to preliminary reading, structure, evidence, briefing, style, and delivery are carefully developed. The forms of oratory are studied, and one or more illustrated by the work of the student. Professor GORDON.

Throughout the year; three hours a week.

7 (*8*). DEBATE—This course seeks to develop the handling of refutation in the preparation of briefs and forensics and actual debate. Professor GORDON.

Throughout the year; two hours a week.

[*Courses 5 (6), and 7 (8), are the same in content during the first semester. Those students who have taken either course alone can schedule for the latter half of the other in the second semester.*]

9. ORATORY—Takes up the problems of the audience, the style and atmosphere of the address, and the function of persuasion in speaking. Professor GORDON.

First semester; two hours a week.

[*This course will not be offered in 1903-1904.*]

11 (*12*). INTERPRETATION OF THE DRAMA—This course takes up the value of imagination and dramatic instinct in the interpretation of the drama and seeks to develop the same. Miss EVERTS.

Throughout the year; one hour a week.

13 (*14*). SHAKESPEARE—A play is studied from the standpoint of its presentation with practical work by the students. Professor GORDON and Miss EVERTS.

Throughout the year; one hour a week.

15. DEBATE AND ORATORY—This course is designed for students desiring special work on the preliminary and intercollegiate debates and the preliminary and oratorical contests for the Northern Oratorical League. Students may schedule for this course at the opening of the first or the second semester. Professor GORDON.

First or second semester; two hours a week.

Compare also Economics 3.

16. EXTEMPORE SPEAKING—Practical work is offered in this course looking to the development of the forms of discourse in actual speaking. This course is open only to men. Professor GORDON.

Second semester; two hours a week.

18. VOCAL EXPRESSION—Practical work in literary interpretation is offered in this course. It is open only to women. Miss EVERTS.

Second semester; two hours a week.

C. COURSES PRIMARILY FOR GRADUATES.

19 (*21*). HISTORY OF ORATORY—A course designed for special research work by graduate students. PROFESSOR GORDON.

HISTORY

PROFESSOR WILCOX; PROFESSOR PLUM AND DR. PEIRCE.

A. ELEMENTARY COURSES

1. HISTORY OF GREECE—Text-book, lectures, and assignments. This is primarily a course in methods of historical study in which the history of Greece is taken for practical illustration. This course is intended for first year students. Professor PLUM and Dr. PEIRCE.

First semester; two hours a week.

An advanced course in Greek History is offered as Greek 21.

2. POLITICAL HISTORY OF ROME—Text-book and lectures. This course is a study of the constitutional history of the Republic, the organization of the Provincial system,

the legal administration and the constitutional monarchy down to the third century of the Christian era. This course also is designed for first year students. Professor PLUM and Dr. PEIRCE.

Second semester; two hours a week.

3. HISTORY OF FRANCE—Text-book and lectures. This course is an outline history of France to 1789. It consists of a study of the monarchical institutions of France, the relation of France to the papal system and to the growth of general European civilization. The course is primarily designed for Sophomores. Professor PLUM and Dr. PEIRCE.

First semester; two hours a week.

4. HISTORY OF GERMANY—Text-book and lectures. The topics under discussion in this course are the organization of the German Kingdom and the Holy Roman Empire, the struggle with the Church, the relation to the Protestant Revolution and the development under the House of Hapsburg. This course also is designed for Sophomores. Professor PLUM and Dr. PEIRCE.

Second semester; two hours a week.

5. THE HISTORY OF EARLY AND MEDIÆVAL ENGLAND—This course consists of topical analyses, special assignments, and lectures. It is an outline study of English History from the beginning of English national life to the close of the War of the Roses. The central theme is the development of English political institutions. The social, economic, literary, and religious life of the people is studied in its relation to the political development of England. Professor PLUM.

First semester; three hours a week.

6. THE HISTORY OF ENGLAND UNDER THE TUDORS AND STUARTS—Topical analyses and lectures. The course covers the History of England from the end of the fifteenth century to the opening of the eighteenth. Special attention is given to the outworking of those complex forces of national life which have made England the foremost body politic in the modern states-system of Europe. Professor PLUM.

Second semester; three hours a week.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

7. THE RENAISSANCE AND THE PROTESTANT REVOLUTION.—This course includes a summary of the Renaissance movement and an analysis of the factors of the Protestant Revolution. Course 4 is recommended as a preliminary to this course. Professor PLUM.

First semester; two hours a week.

8. METHODS OF HISTORICAL STUDY AND CRITICISM.—This course is designed for those who wish to specialize in the study and teaching of History. The first part of the semester will be devoted to a discussion of the canons of criticism internal and external, supplemented by special assignments illustrating the discussion. The second part of the semester will be devoted to constructive work in bibliographies and the handling and organization of materials. Professor PLUM.

Second semester; two hours a week.

9. THE DEVELOPMENT OF THE CONSTITUTION OF THE UNITED STATES—This course is a series of lectures to advanced students. The lectures aim to present the various steps which led to the establishment of the Constitution of the United States in 1789. The struggle between the states of Europe for domination in America, the reasons for the English victory and the growth of the movement for independence constitute the subject-matter under consideration. Professor WILCOX.

First semester; three hours a week.

10. THE HISTORY OF THE UNITED STATES UNDER THE CONSTITUTION—This course consists of lectures on the development of national political life under the Constitution from its establishment in 1789 to the outbreak of the Civil War. Professor WILCOX.

Second semester; three hours a week.

11. THE EASTERN QUESTION—This course is a study in contemporary old-world politics. The Eastern Question is considered with reference to Europe, Asia, and Africa. Professor WILCOX.

First semester; two hours a week.

12. ENGLAND UNDER THE HOUSE OF HANOVER—This is

a lecture course covering the last two centuries of English History. The course is open to those students who have already had courses 5 and 6 or their equivalents. Professor WILCOX.

Second semester; two hours a week.

13. THE FRENCH REVOLUTION—This is a lecture course covering the period of European History from 1789 to 1799. An attempt is made to consider the movement both as a political episode in France and also as an epoch in the general history of Europe. Professor WILCOX.

First semester; two hours a week.

14. THE NAPOLEONIC ERA IN EUROPE—This is a lecture course comprising the history of Europe from the overthrow of the Directory in 1799 to the fall of Napoleon and the Congress of Vienna in 1815. Professor WILCOX.

Second semester; two hours a week.

C. COURSES OPEN TO GRADUATES ONLY

15 (*16*). SEMINARY IN UNITED STATES HISTORY—This is a course of special research in some particular field of United States History. The aim is to develop methods of independent investigation as well as to gain an exhaustive knowledge of some one phase of our national life. In exceptional cases undergraduates of unusual preparation are admitted to this course. Professor WILCOX.

Two hours once a week, throughout the year.

17 (*18*). SEMINARY IN EARLY ENGLISH INSTITUTIONS—This course is open only to graduates of exceptional ability for the work of investigation. A good knowledge of English and Continental History is an indispensable prerequisite. The work of research is designed to develop individual power of investigation as well as to consider the ground-work of English political life. The course consists of a study of the political institutions of the English people prior to the Norman Conquest. Professor WILCOX.

Two hours, once a week, throughout the year.

POLITICAL SCIENCE

PROFESSOR SHAMBAUGH; DR. HORACK

For undergradute students the beginning courses offered in the department of Political Science are 1 and 2. Students who desire to elect but one year's work in this department are advised to schedule for these courses. Those who expect to pursue a more extended line of study in political and social science are advised to schedule for these courses in their second or sophomore year.

Courses 5 and 6 constitute a liberal introduction to the study of law, and are arranged for the combined College of Liberal Arts and Law Course.

A. ELEMENTARY COURSES

1. HISTORICAL AND DESCRIPTIVE POLITICS—AN INTRODUCTION TO POLITICAL SCIENCE—In the study of political and social science this course is fundamental, being a general introduction to the phenomena of organized society among men. The scope of the lectures may be briefly indicated as follows: The early history of mankind, wherein evolution and the fundamental laws of human progress will be explained and their application to the development of social and political institutions clearly indicated; a general consideration of Anthropology with reference to its bearing upon the study of the political and social institutions of the Indo-European peoples; the origin of government historically considered; the political institutions of the ancient Greeks, and a consideration of their political ideas and ideals; the political institutions of the Romans, and a consideration of their contributions to Public Law and Jurisprudence; primitive Germanic institutions, especially the markgenossenschaft; Mediæval politics—feudalism, and the Church and State. Professor SHAMBAUGH.

First semester; Mon., Wed., Fri., at 8:00.

Open to all students except freshmen.

2. MODERN GOVERNMENTS—Lectures on the governments of France, Germany, Prussia, Switzerland, Belgium, and England. Professor SHAMBAUGH.

Second semester; Mon., Wed., Fri., at 8:00.

Open to all students except freshmen.

3. PRINCIPLES OF AMERICAN GOVERNMENT—A study of the sources and early development of the principles of government in the United States. Herein our Anglo-Saxon inheritance, government in the colonies, growth toward independence aud union, the establishment of the first state governments, and the beginnings of local government will be considered. The following documents will be studied and analyzed: Magna Charta, the Act of Habeas Corpus, the Petition of Right, the Bill of Rights, Colonial Charters, Plans for Union, The Declaration of Independence, Articles of Confederation, the First State Constitutions, and the Constitution of the United States.

Lectures and collateral readings. An outline is prepared for the class in the study of Colonial Charters and First State Constitutions. DR. HORACK.

First Semester; Mon., Wed., Fri., at 11:00

Open to juniors and seniors.

4. COMPARAMIVE STATE LEGISLATION—A study of present problems. Herein particular attention will be given to the growth of trusts and corporations showing the diversity of provisions for their organization and control, as well as the causes tending toward greater uniformity of law embodied in Federal legislation. State and Federal statutes and decisions will be studied and compared. The course will be non-technical. Dr. HORACK.

Second Semester; Mon., Wed., Fri., at 11. 00.

Open to juniors and seniors.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

5. JURISPRUDENCE—A study of the nature, definition, classification, and divisions of law. This course will include lectures on the history and fundamental principles of the Civil Law of Rome and the Common Law of England. The discussions will be largely non-technical. Recommended in the Combined College of Liberal Arts and Law Course. Open to juniors and seniors. Professor SHAMBUAGH.

First semester; Mon., Wed., Fri., at 10:00.

6. CONSTITUTIONAL LAW—An introductory study of the nature, principles, and powers of government in the United States as reflected in written constitutions and in judicial

interpretations. Leading cases in constitutional law will be read and discussed. Recommended in the Combined College of Liberal Arts and Law Course. Open to junors and seniors. Professor SHAMBAUGH.

Second semester; Mon., Wed., Fri., at 10:00.

7. AMERICAN POLITICAL THEORY—A study of American political ideas and ideals, wherein leading state papers will be analyzed, and the political theories of such representative American thinkers as William Penn, Thomas Paine, Washington, Hamilton, Jefferson, John Adams, Samuel Adams, Madison, Fisher Ames, Marshall, Monroe, Webster, Calhoun, Clay, Alexander Stephens, and Lincoln will be discussed and criticised. Open to juniors and seniors. Professer SHAMBAUGH.

First semester; Tu., Th., at 10:00.

8. AMERICAN POLITICAL THEORY—This will be a continuation of course 7. Open to juniors and seniors. Professor SHAMBAUGH.

Second semester; Tu., Th., at 10:00.

9. MUNICIPAL GOVERNMENT—A study of the organization and administration of city governments. The problems of modern city life. The sphere and functions of municipal governments. Their relation to quasi-public works. Open to juniors and seniors. Dr. HORACK.

First semester; Tu., Th., at 9:00.

10. GOVERNMENT OF COLONIES AND DEPENDENCIES—A study of the history and principles of the various systems of Colonial government and administration, with special reference to American territories and dependencies, the phenomenon of "Expansion," the causes of migration, the diversity in race characteristics, and the conditions necessary for local self-government. Open to juniors and seniors. Dr. HORACK.

Second semester; Tu., Th,, at 8:00.

11. IOWA HISTORY AND POLITICS—A course of lectures on the history and politics of Iowa. Professor SHAMBAUGH.

First semester; Tu., Th., at 1:30.

12. POLITICAL SCIENCE CONFERENCE—A weekly conference for the discussion of contemporaneous political prob-

lems, current legislation, and current political literature. Professor SHAMBAUGH and Dr. HORACK.

Saturday morning from 10 to 12.

C. COURSES PRIMARILY FOR GRADUATES

13. COMPARATIVE NATIONAL GOVERNMENTS—A comparison of the provisions of the Constitutions of England, United States, France, Germany, and Switzerland, from both a theoretical and a practical standpoint. Dr. HORACK.

First semester; two hours.

14. THEORIES OF SOVEREIGNTY—A general survey of political theories as to the origin, nature, and limitations of governmental authority in relation to the individual. It is the purpose of this course to show historically the development of ideas concerning the functions and powers of government. Dr. HORACK.

Second semester; two hours.

15. POLITICAL THEORY—In this course a system of pure political theory will be outlined and correlated with philosophy. Professor SHAMBAUGH.

First and second semesters; two hours.

16. ADMINISTRATIVE LAW—A comparative study of administrative law in France, Germany, England, and the United States. Professor SHAMBAUGH and Dr. HORACK.

Second semester; two hours.

17. SEMINARY IN POLITICAL SCIENCE—In 1903–1904 selected subjects will be assigned for critical study and discussion. Professor SHAMBAUGH and Dr. HORACK.

Throughout the year; two hours.

POLITICAL ECONOMY AND SOCIOLOGY

PROFESSOR LOOS; ASSISTANT PROFESSOR PATTERSON, MR. CADY, DR. SCHAFFNER, MR. CONNER, AND MR. MITCHELL

The department of Political Economy and Sociology includes courses in Commerce.

Students who look forward to special courses of study in the School of Political and Social Science are advised to elect the introductory course in economic theory and the course in Economic History (Political Economy 1 and 6) in their sophomore year.

Course 1 is a general introductory course for all courses under B; but juniors and seniors may elect course 5, 6, 7, 9, 10, or 29 as an initial course, after which any of the courses under B are open to them. For courses 15 to 26 inclusive courses 1 and 2 in History, or their equivalent, are accepted as a preparation.

On programmes any of the courses of this department may be cited as Economics followed by the appropriate number; or 1 to 14 and 37 to 40 as Economics, 15 to 26 as Sociology, and 27 to 36 as Commerce.

A. ELEMENTARY COURSES

1. INTRODUCTION TO ECONOMICS—An introduction to the leading principles of economic science. Designed for the general student and as a basis for more advanced studies. Two sections. Open to all students except freshmen. Assistant Professor PATTERSON, and Dr. SCHAFFNER.

First semester; Section A—Mon., Wed., Fri., at 9:00 a. m.; and Section B—Mon., Wed., Fri., at 11:00 a. m.

2. Repetition of course 1. Dr. SCHAFFNER.

Second semester; Mon., Wed., Fri., at 10:00.

3. DEBATING COURSE—Selected topics in economics, politics, and sociology. Open only to students who have taken at least one course in one of these subjects. Students may schedule for this course at the beginning of each semester. It appears in the second semester as Economics 4. Professors LOOS and WILCOX; Assistant Professor PATTERSON and Dr. SCHAFFNER.

Each semester two hours; time to be arranged.

Students disiring formal instruction in the art of debate are advised to elect Public Speaking 7 (8) in charge of Professor Gordon. For further explanation of the relations of Economics 3 to the courses in public speaking students are referred to Professor Gordon or to the professors in charge of Economics 3. Compare also Public Speaking 15.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

5. PRINCIPLES OF ECONOMICS—Fundamental economic concepts; the organization of industry; the distribution of

wealth; the relation of the state to industrial action. Designed as a general survey of economic science for advanced students. Professor LOOS.

First semester; Tu., Th., at 9:00, and a third hour by appointment.

6. ECONOMIC HISTORY—Outlines of economic history, with some notice of the history of economic theory, a study more especially of recent economic history with detailed analysis of the industrial revolution in its economic and social aspects. Special attention will be given to the development of the individualistic philosophy and its reaction on practical politics and legislation—the factory acts, trade-unionism and the trust problem. Open to all students except Freshmen. Professor LOOS and Dr. SCHAFFNER.

Second semester; Section A—Mon. Wed. Fri. at 9:00.

Section B—Mon., Wed., Fri., at 11:00.

7. CURRENCY AND BANKING—The nature of currency; metallic money and credit instruments; the principles of banking; the history of banking; government demand obligations and credit financiering. Professor LOOS.

First semester; Mon., Wed., Fri., at 11:00.

8. PUBLIC FINANCE—(1) The Science of Public Finance: the theory of public expenditure; public income and public debts; the preparation of the budget and financial administration. (2) Outlines of the financial history of the United States. Professor LOOS and Mr. CONNER.

Second semester; Mon., Wed., Fri., at 11:00.

9. TAXATION—An intensive study of the principles, methods and systems of taxation with special reference to the incidence and effect of the several taxes, the federal revenue system in the United states and the revenue system of Iowa. Assigned readings in Seligman's *Essays in Taxation* and other writers with special assignments of topics for reports to be prepared from the original sources. Mr. CONNER.

First semester; Tu., Th., at 9:00.

10. TRANSPORTATION—The course will deal chiefly with railways; railroad organization and management, explanation of terms in common use in railroad accounts and reports, history of railroad development, discussion of rates,

competition, discrimination, state management and the commission system—state and interstate. Mr. CONNER.

Second semester; Tu., Th., at 9:00.

*13. THE THEORY AND TECHNIQUE OF STATISTICS—Statistical methods and results, with practical work in investigation and tabulation; the laws that govern group actions; sources and reliability of statistical data; the methods of distinguishing true and false inferences. Assistant Professor PATTERSON.

First semester; Mon., Wed., Fri., at 8:00.

14. ECONOMIC AND SOCIAL STATISTICS—Economic Statistics, two hours; A statistical study of the industrial resources of the United States and commercial statistics. Social Statistics, one hour; Population in its social aspects with special reference to modern cities, tenement house conditions, education, crime, and income. Assistant Professor PATTERSON.

First semester; Mon., Wed., Fri., at 8:00.

15. THE PRINCIPLES OF SOCIOLOGY—An introduction to the theory of sociology, prefaced by lectures on anthropology and ethnology. Professor LOOS.

First semester; Mon., Wed., Fri., at 9:00.

16. SOCIAL AMELIORATION—(1) The general theory of social amelioration: police, sanitation, charities, correction, public utilities, and education. (2) Municipal administration, dealing with the social and economic problems of modern cities. Professor LOOS, Assistant Professor PATTERSON.

Second semester; Mon., Wed., Fri., at 9:00.

17. DOMESTIC INSTITUTIONS—The origins of marriage and the family; evolutionary progress of types; forces leading to the survival of the monogamic type; economic and utilitarian bases of domestic ethics; present industrial dangers to domestic foundations; the problem of divorce. Mr. CADY.

First semester; Tu., Th., at 8:00.

18. CRIME AND CHARITIES—Criminology and penology; pauperism and methods of relief; institutional care of dependants and defectives; philanthropic financiering; social settlements. Mr. CADY.

Second semester; two hours, time to be arranged.

*Courses 13, 14, 29 and 30 were given in 1902-1903 by Mr. Thomas W. Mitchell who acted as supply in the absence of Assistant Professor Patterson.

19. ECONOMICS OF THE HOUSEHOLD—The evolution of the family and the home; the standard of living among different races; industrial changes in their reaction on the home. The economics of production in relation to the family. The home as the unit of consumption. The significance of the home as a civilizing force. Dr. SCHAFFNER.

First semester; two hours, time to be arranged.

20. THE LABOR PROBLEM—The economic condition of the working classes in Europe and the United States from the beginning of the eighteenth century to the present time. The rise and growth of labor organizations; the development of collective bargaining; industrial arbitration and conciliation. Influence of the philosophy of individualism on legislation. The principle of state interference in industry. Dr. SCHAFFNER.

Second semester; two hours, time to be arranged.

22. THE MODERN CITY—A sociological study. To be given by Assistant Professor PATTERSON as part of course 16, second semester.

24. SOCIALISM AND CONTEMPORARY SOCIAL LEGISLATION—A critical examination of contemporary socialism and current tendencies in legislation. Professor LOOS.

Second semester; time to be arranged.

25. INTERNATIONAL LAW—The nature and sources of international law; the rules of peace and of war; the conflict of laws. The diplomatic and commercial bearings of the subject will receive emphasis. Professor LOOS.

First semester; Tu., Th., at 10:00.

26. POLITICAL PHILOSOPHY—Lectures on the development of Political Philosophy and the principles of legislation. The class will read selections from Plato's Republic and Laws, Aristotle's Politics, Machiavelli's Prince, Hobbes, Montesquieu, Blackstone, and Locke; Spencer's *Man vs. the State*, Huxley's *Administrative Nihilism*, Ritchie's *Principles of State Interference*, and selections from other modern philosophers. Professor LOOS.

Second semester; Tu., Th., at 10:00.

27. INTERNATIONAL COMMERCE—Studies in the tariff history of the United States, with an inquiry into the proposed reciprocity treaties, prefaced by introductory lectures

on the development of international law in its commercial aspects, mercantilism, and the "balance of trade" theory. Mr. CONNER.

First semester; Tu., Th., at 2:30.

28. COMMERCE AND THE CONSULAR SERVICE—Lectures on commercial geography, commercial relations and the consular service; and the critical reading of the United States consular regulations with notes on conflict of laws or private international law and reports from students on assigned topics. Mr. CONNER.

Second semester; Tu,, Th., at 2:30.

29. MODERN INDUSTRIALISM—The organization of modern business; competition and combination; speculation and the technique of exchange; industrial depressions; insurance. Assistant Professor PATTERSON.

First semester; Mon., Wed., Fri., at 2:30.

30. CORPORATION FINANCE AND THE THEORY OF ACCOUNTING — Forms of investment; consolidation; bankruptcy, receivership, reorganization; general principles of investment. The principles and methods of accounting—nature of balance sheet and determination of what constitutes a profit; the principles of auditing—the theory of depreciation; going concerns vs. those that have ceased operations. Assistant Professor PATTERSON.

Second semester; Mon., Wed., Fri., at 2:30.

31. ECONOMIC GEOGRAPHY, (Geology 25)—A study of the sources and production of the principal articles of commerce; the influence of climate, topography, soil, and geographical location in creating and supporting trade, locating industrial centers and determining commercial routes. Professor GEORGE.

First semester; Tu., Th., at 11:00.

33 (*34*). THE MATERIALS OF COMMERCE—Courses in the Materials of Commerce are at present provided by the departments of Botany and Geology.

35 (*36*). COMMERCIAL LAW—Students during their senior year may schedule in the College of Law for Contracts, Bills and Notes, and similar courses, under the advice of this department, but in no case for more than five hours in one semester.

C. COURSES PRIMARILY FOR GRADUATES

NOTE—*Some of the courses which follow are prescribed for seniors taking special courses in the School of Political and Social Science. Any of these courses are open to undergraduates who have taken the equivalent of 8 semester hours under B.*

39 (*40*). ADVANCED ECONOMIC THEORY—The rise and development of the classical school of economists will first be considered. This will be followed by a study of the recent development of political economy. The class will read (1) portions of Adam Smith's *Wealth of Nations*, Malthus's *Essays on Population*, Ricardo's *Political Economy*, and Cairnes's *Leading Principles;* and (2) selections from the writings of the Austrians, and from Marshall, Clark, and other modern economists. Professor LOOS.

Throughout the year, two hours; time to be arranged.

40 (*41*). THE DISTRIBUTION OF WEALTH—A study of the fundamental social institutions and controlling forces that are regulative in the distribution of wealth. This is followed by an investigation of the shares received by the several factors engaged in production and also the shares received by the various units of society. Dr. SCHAFFNER.

Throughout the year; hours to be arranged.

45 (*46*). PROBLEMS IN STATISTICS—Designed to assist advanced students in specific lines of statistical research. Assistant Professor PATTERSON.

Throughout the year; hours to be arranged.

47 (*48*). GRADUATE SEMINARY—Three distinct lines of special research work are proposed for 1903–1904. Each graduate student in the department will be expected to undertake an intensive study of some aspect of at least one of these general topics. The preliminary investigations and reports will be made in sections; advanced reports and prepared papers will be presented at joint sessions of the sections on alternate Monday evenings.

A. THE LEGAL BASIS OF INDUSTRIAL SOCIETY—Some of the following subjects will be assigned for special investigations: Legal restrictions on private property and the right of contract. The police power of the state in its relation to industrial problems. Factory legislation. And other leg-

islation regulating industrial conditions. In charge of Dr. SCHAFFNER.

B. Social problems of the modern city. In charge of Assistant Professor PATTERSON.

C. Modern tariffs and reciprocity treaties, with supplementary reports and papers on related topics. In charge of Professor LOOS and Mr. CONNER.

Throughout the year; hours to be arranged.

PHILOSOPHY

PROFESSOR PATRICK; PROFESSOR SEASHORE, DR. STUART, MISS WILLIAMS

A. ELEMENTARY COURSES

1 (*2*). ELEMENTARY PSYCHOLOGY—A general course designed as an outline study of the whole subject, an introduction to the special courses in psychology, and a foundation for other courses in the department. The lectures will be illustrated by a rich collection of material for demonstration and by experiments before the class. James's, *Psychology, Briefer Course*, and selections from other standard texts will be read. This course is open to sophomores. Professor SEASHORE.

Throughout the year, two sections; three hours a week.

3. INTRODUCTORY LOGIC—An elementary presentation of the methods and rules of inductive and deductive thinking, based upon a preliminary study of the general nature and functions of knowledge and of the criteria of truth. Lectures and recitations. For juniors and seniors. Dr. STUART.

First semester; two hours a week.

4. INTRODUCTORY ETHICS—A general survey of the field of ethics comprising (1) the psychology of conscience, (2) the theory of morality, and (3) a sketch of the history of moral progress. Lectures and recitations. For juniors and seniors. Dr. STUART.

Second semester; two hours a week.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

5 (*6*). HISTORY OF PHILOSOPHY—This course will serve as a general introduction to philosophical problems as well as the history of thought. Attention will be given to the definition of terms and explanation of the meaning of the

various philosophical problems. The first semester will be devoted to Greek Philosophy, and early Christian and mediæval thought; the second semester, to modern philosophy.

This course should be taken as preliminary to all advanced courses in philosophy, and, where possible, should be preceded by the elementary courses in psychology, logic, and ethics. Professor PATRICK.

Throughout the year; three hours a week.

7 (*8*). LABORATORY COURSE IN EXPERIMENTAL PSYCHOLOGY—The exercises are so selected and arranged as to familiarize the student with the method, the apparatus, and the results of typical experiments in each of the approved lines of psychological research. Two periods are spent on each problem: during the first period the experiment is performed by each individual, the class being divided into groups of two, and during the second, the results and the literature on the subject are discussed on the seminary plan. Titchener's *Manual of Experimental Psychology* is used and is supplemented by mimeographed instructions. Professor SEASHORE and Miss WILLIAMS.

Throughout the year; two hours a week.

This course may be taken with or in sequence to Course 1.

9. PSYCHOLOGY OF THE CHILD—The physical and mental growth of the child. The theory of recapitulation. The child type. Play. The laws of mental development and the mental characteristics of infancy, childhood, and adolescence. The lectures in this course will be supplemented by reading in the extensive literature of the subject, and by reports from members of the class upon special subjects, such as imitation, self-consciousness, fatigue, suggestibility, right-handedness, differences between boys and girls, etc. Prerequisite, course 1, or some other introduction to psychology. Professor PATRICK.

First semester; two hours a week.

10. COMPARATIVE PSYCHOLOGY—A description and interpretation of the instincts and intelligence of animals. Comparison of the conscious life of the higher animals with that of man. Prerequisite, course 1 or some other introduction to psychology. Miss WILLIAMS.

Second semester; two hours a week.

11. ABNORMAL PSYCHOLOGY—A general survey of the laws of abnormal mental phenomena. Abnormal perception, memory, imagination, reasoning, will, and feeling will be discussed with reference to the explanation of sleep, hypnosis, illusions, automatism, alterations of personality, insanity, degeneracy, and crime. Lectures and reading. Professor SEASHORE.

First semester; two hours a week.

12. AESTHETICS—Preliminary study of the history of æsthetic theories from the Greeks to the present. Analysis and criticism of æsthetic principles and theories from the standpoint of psychology. Reconstructive study of the theory of art, including the sense of beauty and the art impulse. The reconstructive study will be based on Santayana's *Sense of Beauty* and Hirn's *Origins of Art.* Prerequisite, course 1 (*z*) and course 5 (*6*), or their equivalents. Professor PATRICK.

Second semester; two hours a week.

C. COURSES PRIMARILY FOR GRADUATES

13. GERMAN PHILOSOPHY OF THE NINETEENTH CENTURY —This course will include: (1) A review of the three great movements of thought in Germany in the past century, the idealistic, the materialistic, and the pessimistic, and (2) a study of recent German philosophy and present tendencies. Prerequisite, course 5 or its equivalent. Professor PATRICK.

First semester; two hours a week.

14. ENGLISH AND AMERICAN PHILOSOPHY OF THE NINETEENTH CENTURY—A study of recent English and American philosophy, with special reference to the problems of (1) mechanism and teleology, (2) the relation of the physical and the psychical, and (3) pluralism and monism. Prerequisite, course 5 or its equivalent. Dr. STUART.

Second semester; two hours a week.

15. INTRODUCTION TO METAPHYSICS — Definition and scope of metaphysics. Theories of reality, with a critical examination of materialism. The seminary method will be followed. Professor PATRICK.

First semester; two hours a week.

16. PHILOSOPHY OF THEISM—The conception of God in the Christian religion and in modern thought. Final causes. The bearing of evolution on theism. Pantheism. Mysticism. This course is a continuation of course 15. Professor PATRICK.

Second semester; two hours a week.

17. ADVANCED ETHICS—A critical study of the historic ethical standards and methods with reference to their adequacy for practical use. Development of a method of ethics based upon a study of impulse, desire, deliberation, and volition. Interpretation of rightness, goodness, and value or worth; duty, obligation, and merit; freedom, and responsibility. Lectures and discussion of assigned readings. Prerequisite, courses 1 (*z*) and 4. Dr. STUART.

First semester; two hours a week.

18. HISTORY OF ETHICS — A survey, historical rather than critical, of the development of ethical theory, particularly during the seventeenth, eighteenth, and nineteenth centuries. Prerequisite, courses 1 (2) and 4, or their equivalents. Dr. STUART.

Second semester; two hours a week.

19. THE THEORY OF KNOWLEDGE—A brief explanation and criticism of the methods of research employed in the natural and social sciences, followed by a study of the differences between scientific and other knowledge, and of the nature and function of knowledge in general. Among the topics of the first part of the course will be the methods of experimentation, the use of statistics, probability, and the nature of hypotheses. The second part of the discussion will proceed on the basis of the logical writings of Bradley, Bosanquet, Sigwart, and others. The course is designed primarily for graduate students but will not presuppose previous courses in Philosophy. Lectures and assigned readings. Dr. STUART.

First semester; two hours a week.

20. KANT—A study at first hand of the *Critique of Pure Reason*. Prerequisite, courses 5 and 6, or their equivalent. Dr. STUART.

Second semester; two hours a week.

21 (*22*). PROBLEMS IN PSYCHOLOGY—A course of reading and criticism in the current literature of psychology. Professor SEASHORE.

Throughout the year; individual work.

23 (*24*). SPECIAL RESEARCH IN PSYCHOLOGY—Original investigations of special problems in psychology. Laboratory work and theses. The results of these investigations, if of sufficient worth, will be published in the *University of Iowa Studies in Psychology*. Professor SEASHORE, Professor PATRICK, and Miss WILLIAMS.

Throughout the year. Hours to be arranged with instructors.

THE SCIENCE AND ART OF EDUCATION

PROFESSOR BOLTON; PROFESSOR BROWN, MR. DORCAS, MR. HUGGETT, (1902–1903), SUPT. MCCONNELL.

The department of Education at present includes the following branches of University work:

1. Regular courses of instruction in the science and art of education.
2. The inspection of affiliated high schools.
3. The work of the University Examiner.
4. A Bureau of Information concerning teachers' positions.

Course 1 (*2*) is the most desirable as a first course in education. Certain other courses may well be taken at the same time. After course 1 (*2*) the order is not important. Courses 1 (*2*) and 5 (*6*), or 1 (*2*) and 7 (*8*) make a good five hour combination. Courses 1 (*2*), 9 (*10*), 12, and 13 (*14*) are especially desirable for normal school graduates and are in no sense a duplication of work done in the normal schools. Advanced courses are also open to those qualified. Some seminary work is especially valuable for such students.

Some work in psychology is a very desirable prerequisite for the courses in education. Students expecting to do considerable work in education can profitably take psychology in the Sophomore year and then distribute the pedagogical work through the Junior and Senior years.

Attention is called to the courses especially adapted for teachers, offered by other departments. These courses are of two kinds, (*a*) those dealing in a specific way with the methodology and technique of high school instruction in those subjects, and (*b*)those in which the subject matter of ininstruction is of fundamental importance (and to a certain extent adaptable)in teaching those subjects in a modern manner in the high school. As much high school instruction needs vitalizing by being made more adaptable to the demands of the present, the value of such courses becomes apparent. Credit will be given in the Department of Education toward the University Teachers' Certificates, for a limited number of teachers' courses offered in other departments. Such credit will be given only for courses dealing with the methodology of the subject involved. Not more than two hours for a semester will be thus credited, and the work must be taken subsequent to some course in the Department of Education.

Teachers' courses of one kind or the other are offered by the Department of English, Latin, Greek, German, Political Science, History, Morphology, Botany, and Zoology. See the announcements for those departments and also consult the professors concerned.

1 (*a*). PRINCIPLES OF EDUCATION—The meaning of education considered from the standpoint of (1) psychology, (2) neurology, (3) biology, (4) anthropology, (5) sociology. Mental development as affected by heredity and environment. The education of the nervous system, mental hygiene, habit, association, memory, imagination, apperception, instinct, training in sense perception, observation, feeling, and volition in relation to education, motor training, suggestion and imitation as forces in education. Varieties of education and varying ideals, educational means, educational values. Theories maintained by classical writers on education, such as Plato, Comenius, Pestalozzi, Froebel, and Herbart; contemporary writers as Hall, Harris, Rein, Dewey, etc. A study of such questions as the culture epochs, concentration, correlation, nascent periods, etc. Application of the foregoing to the making of courses of study and to teaching.

Two sections, throughout the year; Mon., Wed., Fri., at 10:00. Professor BOLTON. Mon., Wed., Fri., at 9:00. Mr. DORCAS.

3 (*4*). GENERAL PEDAGOGY—This course is designed primarily for students without experience in teaching, those who have not studied psychology or are not taking it. Aims to acquaint the student with the laws governing the growth of the mind, and to derive from these a general method of teaching. The application of the general method will be illustrated in special methods of teaching certain subjects, particularly the language-arts, mathematics, geography, and history. During the second semester it is possible that some work in child study or the history of education may be substituted as a part of the course. Mr. DORCAS (Mr. HUGGETT, 1902–1903).

Throughout the year; daily at 8:00.

5 (*6*). METHODOLOGY AND TECHNIQUE OF INSTRUCTION—A careful study of the fundamental principles of methodology of teaching, together with demonstrations of library and laboratory accessories. The major part of the time will be devoted to high school subjects, though the relation of elementary to higher instruction will be considered. Designed to be thoroughly practical. Members of the faculty from several other departments give two or more lectures on the teaching of their own subjects in the high school. During the past year the heads of the departments of English, History, Political Science, Botany, Mathematics, and Morphology have given such special lectures. These and others may be expected again this year. Through kindness of school officials students will be permitted to visit the city schools to observe methods and school organization.

Two sections, throughout the year; Tu., Th., at 10:00, Professor BOLTON. Tu., Th., at 9:00, Mr. DORCAS.

7 (*8*). HISTORY OF EDUCATION—A rapid survey of the education of the Chinese, Egyptians, Hindus, and Persians; a careful consideration of Hebrew, Greek, and Roman education; the tracing of educational activity throughout the Dark Ages, and Scholasticism, down to the Renaissance; development of the humanistic, realistic, and naturalistic tendencies in Renaissance education; a careful study of the more prominent educational reformers, such as Erasmus,

Montaigne, Rabelais, the Jesuits, Comenius, Locke, Rousseau, Pestalozzi, Froebel, and Spencer. Mr. DORCAS (Mr. HUGGETT, 1902–1903).

Throughout the year; Tu., Th., at 11:00.

9 (*01*) JOURNAL CLUB—This club meets weekly for the discussion of current educational literature. A report is usually given by some member upon articles of current interest, and then all join informally in the discussion. It has proven of great mutual benefit to students joining. Open to students taking some other course in this deparment. Professor BOLTON and Mr. DORCAS. (Mr. HUGGETT, 1902–1903).

Throughout the year; Th., at 4:30.

12. THE PEDAGOGY OF CHILDHOOD AND ADOLESCENCE—A study of the physical, mental, and moral nature of children and the best means of the proper development and training of each. Practical questions of home, school, aud social pedagogics will be prominent, e. g., educational value of plays and games, self-government in school, children's interests and how to guide them, the power of imitation, the development of altruism, learning of law and order, children's fears, the nervous child, the troublesome child, eyesight, hearing, school diseases, school hygiene, overpressure in schools, the value of child study to parents and teachers, etc. Professor BOLTON.

Second semester; two hours a week.

13 (*14*). THE HIGH SCHOOL—A practical consideration of the problems of the high school, including the place of the high school in an educational system, its relation to the community, organization and management, courses of study, educational values of high school subjects. The high school in its relation to adolescence. To give perspective, the historical development of the American high school, and a comparative view of foreign school systems will be considered. The training of teachers, the success of school systems with reference to (a) the developement of the individual, and (b) the demands of society. Professor BOLTON, Professor BROWN; Supt. MCCONNELL.

Throughout the year; Tu., Th., at 3:30.

15 (*16*). SEMINARY FOR UNDERGRADUATES—Open only to advanced undergraduate students in education. This course will afford an opportunity for the special investigation of simple educational problems. It will form an introductory course in seminary methods of research. Professor BOLTON.

Throughout the year; Mon., or Fri., at 4:30 to 6:00.

COURSES PRIMARILY FOR GRADUATES

17. PHILOSOPHY OF EDUCATION—Advanced course. This course will consist of a more detailed and exhaustive study of some of the questions begun in course 1 (*2*). Lectures will be given indicating the method of approach and outlining the topic, and then students will be expected to study critically through copious reading, sustained reflection, and, in some cases, observation and experimentation. Reports upon prepared topics will be submitted for class discussion. Professor BOLTON.

First semester; Tu., Th., at 2:30.

18. HYGIENE OF INSTRUCTION—The physical and psychological conditions that promote normal psychic development. The following are typical topics: General facts and laws of growth and development; fatigue and methods of studying it; hygiene of the senses; principles and hygiene of motor training; periods of study, recesses, home study; ventilation, school furniture, and apparatus; the hygiene of reading, writing, singing, arithmetic, etc. Lectures, assigned readings, and reports. Professor BOLTON.

Second semester; two hours a week.

*19. HERBARTIAN PEDAGOGY—Herbart's psychological and ethical doctrines in their bearing upon education. A critical consideration of his doctrines of apperception, interest, ethical development, and will training. A sketch of the Herbartian movement in Germany and in America. Teachings of Herbartian disciples. The doctrines of concentration, correlation, and the culture epochs will receive more exhaustive treatment than is possible in course 1 (*2*). Professor BOLTON.

First semester; two hours a week.

*20. READINGS IN GERMAN AND FRENCH PEDAGOGY—Open only to those who have taken advanced courses in pedagogy, and who have a reading knowledge of these languages sufficient to make them a means of thought-getting. Readings and translations will not be attempted in class; this period will be devoted to reports upon the thought-content gained through reading. Professor BOLTON.

Second semester; two hours a week.

*21. CURRENT EDUCATIONAL PROBLEMS—The topics discussed will necessarily vary somewhat from year to year. An attempt will be made to study carefully the questions that are in the focus of consciousness of the educational public. The following are typical and merely suggestive: Electives in high schools and colleges; self-government of pupils; athletics in high schools; manual training; theory of the kindergarten and its public maintenance; transportation of children to school at public expense; state aid to primary and higher education; nature study; child study in the schools; medical inspection of schools; training of teachers, etc. Professor BOLTON.

First semester; two hours a week.

*22. HISTORY OF EDUCATION—Advanced course. Open only to those who have taken course 7 (*8*) in this subject. An exhaustive study will be made of selected chapters in the history of the development of educational thought. Sources will be investigated whenever available. Lectures, readings, and exhaustive reports. Mr. DORCAS.

Second semester; two hours a week.

23 (*24*). GRADUATE SEMINARY IN PEDAGOGICS — Designed to assist graduate students in original research and in the prosecution of thesis work for advanced degrees. Professor BOLTON.

Throughout the year; Mon., or Fri., 4:30 to 6:00.

THE EDUCATIONAL LIBRARY AND MUSEUM—The department of the Science and Art of Education occupies a suite of five rooms on the second floor of the Hall of Liberal Arts.

*The starred courses will not all be given in one year. A group will be offered each year, thus enabling the student to secure from this list new courses for at least three years. This arrangement, combined with the opportunities provided by the regular courses given each year, and the special seminar work, offers a wide scope of work to those seeking the master's or doctor's degree in education.

Besides two offices, a seminar room, and a large lecture room, there is one large room used as a department library and museum.

The library is well equipped with all the standard and many special pedagogical works. All the American educational journals of any importance, and many English, German, and French periodicals are on file. In all about forty journals are regularly received. The library is thoroughly equipped for graduate work in most lines of educational research. It is especially well equipped for work in educational psychology, philosophy of education, and child study.

ANIMAL MORPHOLOGY AND PHYSIOLOGY

PROFESSOR HOUSER; MR. LAMBERT, MR. STROMSTEN

The courses offered by the department of Animal Morphology and Physiology are arranged in two groups: (*A*) Three elementary courses, each presenting a somewhat distinct aspect of biological science. Courses 1 (*2*) and 3 (*4*), or courses 3 (*4*) and 5 (*6*), may be combined during the same year by those desiring to do more than introductory work. (*B*) Eight courses successively more and more advanced, leading, ultimately, to original research. These courses are to be pursued in serial order.

A. ELEMENTARY COURSES

1 (*2*). ANIMAL BIOLOGY—This course is designed to give a general view of the structure, development, and activities of animals. Laboratory work on fundamental biological phenomena and the unicellular organisms, followed by the dissection and microscopical study of representatives of the chief animal groups. Lectures on the principles of animal organization, supplementary to the laboratory studies, together with the more general topics of environment, heredity, variation, natural selection, animal coloration, and instinct. Professor HOUSER, Mr. LAMBERT, and an assistant.

Throughout the year, two hours' credit; Mon., Wed., 1:30 to 3:30.

3 (*4*). ANIMAL PHYSIOLOGY—Lectures, reading, and laboratory work introductory to the fundamental principles of animal physiology. This course has sufficient breadth of

treatment that, while serving the needs of the general student, it may also form the basis for the work of the teacher or specialist in human physiology. Stewart's *Manual of Physiology* is read by the class as a text, with additional references to works iu the departmental library. Professor HOUSER, Mr. LAMBERT, and an assistant.

Throughout the year, two hours' credit; Tu., Th., 1:30 to 3:30.

5 (*6*). MORPHOLOGY OF VERTEBRATES—Laboratory study of representative protochordates, followed by the dissection of the lamprey, shark, skate, cat-fish, necturus, frog, turtle, pigeon, and rabbit. Microscopical anatomy is introduced at certain points. Lectures on the general problems of vertebrate organization, with reading in Wiedersheim's *Comparative Anatomy of Vertebrates*. This course, while also a preparative for the study of human anatomy, is intended primarily for those expecting to pursue advanced courses in animal morphology. Professor HOUSER, Mr. LAMBERT, and Mr. STROMSTEN.

Throughout the year, two hours' credit; Wed., Fri., 10:00 to 12:00.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

7. VERTEBRATE HISTOLOGY—This is a laboratory course on the microscopical anatomy of the tissues and organs of vertebrates, with constant use of the reference library. The work includes the principles and more general methods of investigation, particularly fixing, imbedding, sectioning, staining, and mounting. The latter part of the course is devoted to a special study of the mammalian nervous system by means of modern technique, accompanied by a series of lectures and demonstrations. Prerequisite, either courses 1 (*2*), 3 (*4*), or 5 (*6*), or the equivalent of course 1 (*2*). Professor HOUSER and Mr. STROMSTEN.

First semester, four hours' credit; Mon., Tu., Wed., Th., 1:30 to 3:30.

8. EMBRYOLOGY OF VERTEBRATES—Lectures on the comparative embryology of vertebrates, supplemented by required reading. Demonstrations and practical studies of germ-cells, oögenesis, spermatogenesis, fertilization of the ovum, cleavage of the fertilized egg, development of the germ-layers,

and formation of the embryo. After the first of April, the laboratory work consists of the preparation and study of the chick at successive stages of the development during the first four days of incubation. Prerequisite, course 7. Professor HOUSER and Mr. STROMSTEN.

Second semester, four hours' credit; Mon., Tu., Wed., Th., 1:30 to 3:30.

9. EXPERIMENTAL MORPHOLOGY—A study of the relations between the animal organism and its environment. Laboratory work, lectures, reading, and reports. The experimental work involves a study of: (*a*) the effects upon protoplasm of chemical and physical agents; (*b*) the factors which determine the course of development; (*c*) the phenomena of regeneration in representative forms. Texts: Davenport's *Experimental Morphology*, Haacke's *Entwickelungsmechanik*, Morgan's *Regeneration*, Verworn's *General Physiology*, supplemented by references to original literature. Prerequisite, courses 7 and 8. Professor HOUSER and Mr. LAMBERT.

First semester, three hours' credit; Tu., Th., at 10:00; laboratory hours to be arranged. To alternate with course 11; given in 1904–1905.

11. CELLULAR BIOLOGY—This is a course for the special study of the animal cell. The structure of protoplasm, and the general biology of the cell are presented through laboratory work on the Protozoa, the phases of mitosis, amitosis, and a series of cells from higher animals exemplifying diverse lines of specialization. Prominent conceptions of organization and function are reviewed in lectures. The latter part of the course is devoted to a critical analysis of the facts and theories of heredity. Texts: Hertwig's *The Cell*, Wilson's *The Cell in Development and Inheritance*, Verworn's *General Physiology*, with references to original monographs. Prerequisite, courses 7 and 8. Professor HOUSER and Mr. LAMBERT.

First semester, three hours' credit; Tu., Th., at 10:00; laboratory hours to be arranged. To alternate with course 9; given in 1903–1904.

10. COMPARATIVE NEUROLOGY—A course on the structure and physiology of the nervous system, continuing the

study begun in course 7. The scope of the work includes a review of: (*a*) the beginnings of nervous mechanisms in the lower animals; (*b*) the nervous systems of typical invertebrates; (*c*) the origin and progressive differentiation of nervous structures in the vertebrate series. The subject is presented by lectures, anatomical work, and microscopical study through the use of modern neurological methods. Reading is assigned in the extensive literature pertaining to this field. Prerequisite, courses 7 and 8. Professor HOUSER and Mr. LAMBERT.

Second semester, three hours' credit; Tu., Th., at 10:00; laboratory hours to be arranged. To alternate with course 12; given in 1904–1905.

12. INVERTEBRATE EMBRYOLOGY — Reading, conferences, and laboratory studies introductory to the development of representative invertebrate forms. This course, while general in its scope, is particularly helpful to those expecting to pursue work at seaside laboratories. The course is based on Korschelt and Heider's *Text-Book of the Embryology of Invertebrates*, but the student is encouraged throughout to refer to original papers so far as these are accessible. Prerequisite, courses 7 and 8. Professor HOUSER, and Mr. LAMBERT.

Second semester, three hours' credit; Tu., Th., at 10:00; laboratory hours to be arranged. To alternate with course 10; given in 1903–1904.

C. COURSES PRIMARILY FOR GRADUATES

13 (*14*). MORPHOLOGICAL SEMINARY—Weekly meetings of the intructors and advanced students of the department for the presentation of papers, the review of literature, and informal discussions. The primary object is to acquaint those devoting especial attention to animal morphology with some of the aims and problems of current investigation. Professor HOUSER.

Throughout the year; Fri., at 3:30.

15 (*16*). RESEARCH COURSE—Original investigation of a specific problem in animal morphology. The subjects assigned for research will be in Neurology, Experimental Morphology, Cytology, and Embryology. Means will be found for the publication of all results which are worthy of it.

For graduate students having the requisite preliminary training in biological work. Professor HOUSER.

Throughout the year, five periods a week; hours to be arranged.

ZOOLOGY

PROFESSOR NUTTING; ASSISTANT PROFESSOR WICKHAM

A. ELEMENTARY COURSES

1. SYSTEMATIC ZOOLOGY—The earlier part of this course is devoted chiefly to study of the cœlenterates and echinoderms. Later the mammals are taken up and the principles of classification applied to this more limited group. More attention is paid to generic and specific characters, and more detailed descriptions are made, daily practice being afforded by the use of the large series of mammals in the Hornaday collection and main museum. Instruction in the preparation of skulls and skeletons is given to students desiring it. Professor NUTTING, and Assistant Professor WICKHAM.

First semester; Mon., Tu., Wed., Th.; or Mon., Tu., Wed., Thu., Fri.

2. SYSTEMATIC ZOOLOGY—This course will be concerned with a continuation of the study of mammals; the last twelve weeks however will be spent in the consideration of birds, and on this subject the whole work in Systematic Zoology is centered. Owing to the very large series of birds (about 11,000 specimens) in the museum, there is ample opportunity for systematic work during this semester. Professor NUTTING, and Assistant Professor WICKHAM.

Second semester; Mon., Tu., Wed., Th.; or Mon., Tu., Wed., Th., Fri.

B. COURSES FOR GRADUATES AND UNDERGRADUATES

3 (4). ENTOMOLOGY—This course opens with a study of the anatomy and the development of insects, after which each order will be taken up in detail, typical species of the principal families being chosen to illustrate structure and classification. Due attention is given to economic problems and to the philosophical side of the subject. Assistant Professor WICKHAM.

Throughout the year; Mon., Wed., Fri.

5 (*6*). LECTURES ON SPECULATIVE ZOOLOGY—This course is devoted to a presentation of the more prominent theories concerning the origin and the development of animal forms and a historical review of the position held by the most prominent workers in speculative zoology. Special attention will also be paid to a study of the habits, instincts, and intelligence of animals. The course will be open to juniors and seniors. Professor NUTTING.

Throughout the year; Tu., Th.

7 (*8*). ENTOMOLOGICAL TECHNIQUE—Instruction in the best methods of collecting, mounting, and preparation of insects. This course will involve a certain amount of field work, and will supplement courses 3 and 4. It is not intended to be set work, but will give the student an opportunity to consider problems of local distribution, correlations of habit and structure, and other phenomena which can be dealt with satisfactorily in connection with labors in the field. It should also fit him for such practical tasks as are likely to be met with in the line of original investigations. While intended primarily for graduates, or for those who have completed courses 3 and 4, others may be admitted at the discretion of the professor. Assistant Professor WICKHAM.

Hours will be arranged.

9 (*10*). THESIS—Advanced work in any group of animals of which the museum contains a sufficient series. Free access to any specimens or books on the museum floor is accorded students doing thesis work in zoology, and a convenient study room has been fitted up for the use of advanced students.

The above courses are intended to be consecutive, except that course 3 may follow the first year's work in animal morphology, and 5 may be taken by juniors and seniors without previous work in natural science. A combination of courses 3 and 5 is recommended for students desiring a five hours' course, which will include a critical study of a definite group of animals, together with the application of biological principles elucidated in course 4. This course is more particularly designed in the interest of students who do not intend to specialize in zoology.

C. COURSES PRIMARILY FOR GRADUATES

11 (*12*). An exhaustive systematic discussion of any limited group of animals of which the museum affords sufficient material and the library sufficient literature.

In several groups, such as birds, echinoderms, mollusca, crustacea, coleoptera, and cœlenterata, the Museum can now offer facilities for the most advanced systematic work, both the material and the literature being adequate.

13 (*14*). Special investigation along the lines of speculative zoology; e. g., coloration of animals, geographical distribution, variation, natural selection, etc.

Each course in zoology will involve considerable original research, and cannot be outlined in advance, as it is impossible to foretell the direction in which the student will be led by his investigations. As an example of the nature of the work expected of students taking zoology as a major, the following outline of a thesis presented and accepted for the master's degree is given:

Subject: *Individual Variation of Animals in a State of Nature.*

Material used: The unusually large series of certain American birds in the museum of natural history, and the literature on variation in the university library.

Method of work: Over ten thousand measurements were taken of the parts to be compared. These measurements were recorded, and used in constructing diagrams which show graphically: (*a*) the actual extent of variation; (*b*) the comparative extent of variation; (*c*) correlation in variation of different parts of the animal.

The thesis itself presents a discussion of variation in general, and the results of the special investigations of the writer in particular, with immediate reference to their bearing on the theory of natural selection as advanced by Charles Darwin. The diagrams indicated that not only the extent of variation but also the direction in which it is tending, can be ascertained by the method used by the investigator.

BOTANY

PROFESSOR MACBRIDE; PROFESSOR SHIMEK

A. COURSES FOR UNDERGRADUATES

1 (*a*). GENERAL BOTANY—A course of popular lectures and special studies intended to illustrate the purpose, method, and scope of present botanical research, the progress of botanical science in recent years, and the general economic importance of the subject. The lectures are illustrated by material from the harbarium and the field, and no effort is spared to give the course the highest practical value. This course, though intended primarily for those intending to teach, is open to all students.

A course of illustrated lectures, usually one every Monday evening, accompanies this course and course 5. Professor MACBRIDE.

Two hours a week; throughout the year.

3. MORPHOLOGICAL BOTANY—This course consists of lectures and laboratory work and is intended to illustrate the structure and life-history of the several types presented by the vegetable kingdom. Goebel's *Outlines of Classification* is used as basis. Special attention is paid to all available forms of our cryptogamic flora; slime moulds, schizophytes, diatoms, algæ, fungi, mosses, ferns, and their allies are successively passed in review. This course is open to all students who have had course 1, and to all students who are credited with botany in their preparatory course. While it is in some particulars a review of the preparatory course, it is also made the basis of work in the subsequent courses. Professor MACBRIDE; Professor SHIMEK.

First semester; Mon., Tu., Wed., Th.

4. GENERAL PLANT HISTOLOGY—This course requires eight hours a week in the laboratory. Daily lectures accompany the laboratory work. In connection with this course the student receives special instruction in the preparation of sections, staining, mounting, etc. Professor MACBRIDE; Professor SHIMEK.

Second semester; Mon., Tu., Wed., Th.

5 (*6*). GENERAL PLANT PHYSIOLOGY—A course of lectures on the general physiology of plants, supplemented by laboratory work. Professor SHIMEK.

Throughout the year; two hours a week.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

7 (*8*). EXPERIMENTAL PLANT PHYSIOLOGY—This is a course in experimental laboratory and field work, and includes the investigation of the processes of absorption, assimilation and respiration in the green plant, including the attendant phenomena of transpiration, geotropism, hydrotropism, etc. Professor SHIMEK.

Two hours a week; throughout the year.

9 (*10*). PLANT ECOLOGY—The most important problems of ecology in the broadest sense are discussed, and illustrated by field and laboratory work. The local flora, developed under the diversified conditions existing in the region about the University, furnishes abundant material for the illustration of the more important phases of modern ecology.

This course is especially recommended to those intending to teach. Professor SHIMEK.

Three hours a week; throughout the year.

11 (*12*). GENERAL MYCOLOGY — This is a course in the study of fungi, and consists of laboratory work, supplemented by lectures, experiments, and collateral reading. It is an advanced course. Students make and classify collections for themselves. In identifying material collected, students are aided by extensive mycologic literature, *exsiccati*, etc. Professor MACBRIDE.

Throughout the year; as arranged.

13 (*14*). VEGETABLE EMBRYOLOGY—A special laboratory course with collateral reading. This course is confined chiefly to the consideration of the embryology of phenogamous plants. Some plant is selected by the student and its whole life history traced. Professor MACBRIDE.

Throughout the year; as arranged.

15 (*16*). SPECIAL SYSTEMATIC WORK—The large collections of the University now afford unusual opportunity for the special duty of particular groups and families, and stu-

dents are invited to engage in original research in the revision of accumulated species. Professor MACBRIDE and Professor SHIMEK, according to the gronp chosen.

Throughout the year; as arranged.

17 (*18*). SPECIAL APPLIED BOTANY—A course of reading and laboratory study for students of pharmacy and medicine. The official *Materia Medica* is made the basis of the special study of medicinal plants, their nature, origin, and relationships. Professor MACBRIDE.

Throughout the year.

19 (*20*). THESIS COURSE—Designed for such students, either graduates or others, as desire to undertake problems of original research. Professor MACBRIDE and Professor SHIMEK.

Throughout the year.

21 (*22*). SEMINARY—A special course in reading and study of current literature is arranged for such students as have completed at least the equivalent of courses 3 and 4 in botany. Students are expected to prepare written reviews and criticisms of the literature presented, to engage in discussion of topics especially assigned, and to carry forward at appropriate seasons special investigations in the field as directed. Professor MACBRIDE and Professor SHIMEK.

Throughout the year; one hour a week, Mon., 4:30 P. M.

23 (*24*). PLANT PATHOLOGY—A study of the causes of plant diseases and deformities. Special attention is given to pathological organisms, and to external conditions producing pathologic conditions in the plant. Professor MACBRIDE.

Throughout the year; one hour a week.

25 (*26*). ECONOMIC BOTANY—A lecture, laboratory and field course presenting a view of the plant world with reference to economic uses. Woods and fibres, and special plant products of use to man are considered. Professor SHIMEK.

Throughout the year; one hour a week.

GEOLOGY

PROFESSOR CALVIN; PROFESSOR GEORGE, MR. LOOS

A. COURSES FOR UNDERGRADUATES

1 (*2*). PRINCIPLES OF GEOLOGY—This course is designed

to present the fundamental facts of geology for students who wish to become acquainted with the principles of the science without making a specialty of it. Lectures, illustrated with Museum specimens, views, maps, and microscopic preparations. Professor CALVIN.

This course may be supplemented by course 1 in astronomy.

Throughout the year, twice a week; Tu., Th., at 9:00.

3. ELEMENTARY MINERALOGY AND PETROLOGY—This course will include a study of a few of the common economic minerals, and the application of easy determinative tests; the common rock-forming minerals and the common rocks. The aim of the course is a practical familiarity with common minerals and rocks, rather than a technical knowledge of them. Professor GEORGE.

This course may serve as an introduction to course 5.

The first half of first semester; Mon., Wed., Fri., at 8:00.

5. PHYSICAL AND DYNAMICAL GEOLOGY—In this course the principles of general geology are discussed so far as they relate to the destructive, constructive, and other dynamic forces which operate to bring about change on the earth's surface. Especial attention is given to the facts of rock-making, continent-making, and mountain-making, together with the evolution of the major and minor topographic forms of the North American continent. Large series of rocks, minerals, maps, lantern slides, photographs, and models afford the materials for lecture illustration and laboratory study. Professor CALVIN.

Lectures and laboratory work; Mon., Tu., Th., Fri., first semester, at 10:00.

6. HISTORICAL GEOLOGY—In this course attention is given to the time periods and rock systems recognized by geologists, to the physical and physiographic conditions under which the successive rock strata of North America were deposited, and to the lithology, geographical distribution, economic products and typical faunas of the several formations, particularly those of the Mississippi Valley. Professor CALVIN.

Lectures and laboratory work; Mon., Tu., Th., Fri., second semester, at 10:00.

7 (*8*). GEOGRAPHIC GEOLOGY, TEACHERS' COURSE—This is a course intended to meet the needs of those who expect to teach Physical Geography and Geology in High Schools. It will include a study of the origin of the physical features of the earth, the agencies of geographical and geological development and change, and an outline of historical geology. Large use will be made of illustrative materials including rock and mineral specimens, models, maps, photographs, lantern slides, and field examples.

Throughout the year, twice a week; Tu., Th., at 8:00.

25. ECONOMIC GEOGRAPHY (Economics 31)—A study of the sources and production of the principal articles of commerce; the influence of climate, topography, soil and geographical location in creating and supporting trade, locating industrial centers and determining commercial highways. Professor GEORGE.

First semester; Tu., Th., at 11:00.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES.

9 (10). ECONOMIC GEOLOGY — The course is intended to give a practical knowledge of the geological products of the United States which are of economic importance. It will include:

(a). Metalliferous products, the nature and distribution of ore deposits, the sources and modes of deposition of ores, with special reference to the ores of iron, copper, lead, zinc, nickel, tin, manganese, silver, and gold.

(b). Non-metalliferous products, including coal, petroleum, natural gas, phosphates, gypsum, marls, cements, building stone, etc.; soils, fertilizers, and water supply. Professor GEORGE.

Mon., Wed., Fri. From middle of first semester through the year, at 8:00.

This course should be preceded by course 2 or course 3.

NOTE—This is primarily an undergraduate course but may be taken by graduate students who have done a year's work in geology.

11 (*12*). PETROLOGY—This course will include:

(a). Crystallography; a study of the properties of crystals, the process of crystallization and the crystal systems, with

laboratory exercises using natural crystals, crystal models, and microscopic sections of crystals;

(b). Descriptive and determinative mineralogy of the rock-making minerals;

(c). The mineralogical and chemical composition of rocks, their origin, structural features, and classification.

The laboratory equipment for this course consists of carefully selected collections representing all the principal rock-making minerals, rock families, and rock types, together with several hundred thin sections for study with the microscope, and a number of the latest and best petrographical microscopes. Professor GEORGE.

Throughout the year; Mon., Tu., Wed., Thu. Lectures and laboratory work, 1:30 to 3:30.

13 (*14*). INVERTEBRATE PALEONTOLOGY—The course in Paleontology is designed primarily to give the student such acquaintance with fossil faunas as will enable him to determine the age of rocks containing recognizable organic remains. The principles of classification are studied, and the principal fossil types are carefully described from museum material or from specimens collected in the field. Professor CALVIN.

Throughout the year; Tu., Wed., Thu., Fri., at 8:00.

15 (*16*). GEOLOGY OF IOWA—This course is offered to students who have had the equivalent of courses 3 and 4, or 3 and 5, and is intended for those who, for any reason, desire an intimate knowledge of the geology of the state. To count four hours for one, or two semesters. Hours arranged to meet the convenience of students. Professor CALVIN.

17 (*18*). PETROLOGY—Advanced work is offered to students who have taken a course in petrology. The work will consist in the careful study of the rocks of a selected region, and the preparation of a thesis on the same. The course may be taken so as to count two, or four hours through the year. Professor GEORGE.

C. COURSES PRIMARILY FOR GRADUATES

19 (*20*). RESEARCH WORK IN PALEONTOLOGY — This course may be taken as a major or a minor by candidates for

graduate degrees. It may embrace such problems as the stratigraphic distribution of the fauna of a given geological formation, the critical study of certain selected geological faunas, the geographical and geological range of certain zoological groups of organisms, or the evidences of descent in successive geological faunas. Length of course, from one to three years. Professor CALVIN.

21 (*22*). FIELD WORK IN GEOLOGY — This work may cover any one of a large range of subjects. For example, it may include the careful study of the indurated rocks of some selected area, making sections, correlating outcrops, mapping the geology, and writing a report. The study of Pleistocene geology in Iowa affords many interesting problems relative to the age and composition of the drift in different localities, the characteristics and origin of the crystalline bowlders, the origin and distribution of the loess, and many other questions. The work may be directed by Professor CALVIN or Professor GEORGE.

23 (*24*). RESEARCH WORK IN ECONOMIC GEOLOGY OR MINERALOGY—The work in this course will depend largely on the previous preparation of the student. It may consist of detailed study of some geological field of economic importance, or of some mineral or group of minerals and the related industries. The credit given will depend upon the nature of the work and the time spent. Professor GEORGE.

CHEMISTRY

PROFESSOR ANDREWS; DR. VON ENDE, MR. H. H. LOCHRIDGE, MISS A. ANKENEY, MR. — ——

1. GENERAL CHEMISTRY—Experimental lectures, with laboratory practicum and a weekly quiz. Professor ANDREWS, and Dr. VON ENDE.

First semester; four times a week, of which the laboratory practicum constitutes one exercise during the first half and two during the second.

Lectures, Mon., Wed., and Fri., at 9:00. Laboratory any afternoon between 2 and 5.

2. GENERAL CHEMISTRY (Continued).—Lectures illustrated by experiments. Introduction to qualitative analysis. Professor ANDREWS, and Dr. VON ENDE.

Second semester; Laboratory practicum six hours a week. Lectures; Mon., Fri., at 9:00. Laboratory hours as during the first semester.

3 (*4*). QUALITATIVE ANALYSIS — Laboratory practicum four times a week.

Dr. VON ENDE, First semester.

Professor ANDREWS, Second semester.

5. QUALITATIVE ANALYSIS — (*a*) Lectures on general principles and sources of error, once a week. (*b*) Laboratory, ten hours a week. Professor ANDREWS.

First semester; four times a week (*A*), or five times (*B*).

6. QUANTITATIVE ANALYSIS (Continued).—(*a*) Lectures once a week. (*b*) Laboratory, ten hours. Professor ANDREWS.

Second semester.

7 (*8*). THEORETICAL AND PHYSICAL CHEMISTRY — Lectures and laboratory practica, covering chemical statics and dynamics, thermo- and electro-chemistry. Dr. VON ENDE.

First and second semester; lectures once a week, and practicum once a week.

9 (*10*). THEORETICAL AND PHYSICAL CHEMISTRY—Laboratory course. Courses 7, 8 and 9, 10 may be taken simultaneously or independently. They must be preceded by at least courses 1 and 2 and by the first two in physics, or their equivalent. Dr. VON ENDE.

First and second semester; laboratory practicum twice a week.

12. HISTORY OF CHEMICAL THEORIES—Lectures on the development of chemical theory, with particular attention to the post-phlogiston period.

Second semester; twice a week.

13 (*14*). ORGANIC CHEMISTRY—Lectures on the aliphatic, carbocyclic and heterocyclic compounds. Laboratory exercises on the preparation of typical organic compounds, methods of synthesis, and study of reactions. Professor ANDREWS.

First and second semesters, lectures once a week. Laboratory, twice a week (*A*), or four times a week (*B*).

15 (*16*). DETERMINATIVE MINERALOGY—Laboratory exercises in the recognition of minerals, and blowpipe analysis. Dr. VON ENDE.

First and second semesters; practicum, three times a week.

C. COURSES OPEN TO GRADUATES ONLY

17 (*18*). RESEARCH WORK in either of the branches designated above under 5, 6, or 7. In all cases where chemistry is taken as a major, part of the work must be in class c.

Much weight is attached to properly directed courses of reading. The attention of the student is turned particularly to the study of the *sources*—of the original publications of investigators who have built up the science of chemistry, rather than to the works of compilers or text-book makers; since it is believed that in this way the scientific spirit can best be stimulated and developed.

PHYSICS

PROFESSOR VEBLEN; MR. LORENZ, MR. SIEG, MR. BOEHM

A. COURSES FOR UNDERGRADUATES

1. MECHANICS, SOUND, AND HEAT—Lectures and recitations. Professor VEBLEN, Mr. SIEG, and Mr. BOEHM.

First semester, four times a week, 11:00.

2. ELECTRICITY, MAGNETISM, AND LIGHT—Lectures and recitations, twice a week. General laboratory work, twice a week. Professor VEBLEN, Mr. LORENZ, Mr. SIEG, Mr. BOEHM.

Second semester; lectures at 11:00.

B. COURSES PRIMARY FOR UNDERGRADUATES, BUT OPEN ALSO TO GRADUATES

3. PHYSICAL MEASUREMENTS—Laboratory work, two or or more times a week, one semester. Mr. LORENZ.

4. MEASUREMENTS AND DETERMINATIONS OF CONSTANTS—Two or more times a week in the laboratory; one semester. Mr. LORENZ

5. ELECTRICITY AND DIRECT CURRENT MACHINES — Lectures to electrical and civil ingineering Juniors. Professor VEBLEN.

First semester, twice a week.

6. ALTERNATE CURRENT MACHINES — Lectures to engineering Juniors. Professor VEBLEN.
Second semester, once a week.

7 and 8. ELECTRICAL MEASUREMENTS — Junior Electrical Laboratory Course. Professor VEBLEN and Mr. LORENZ.
Twice a week, throughout the year.

10. HEAT AND THERMODYNAMICS — Lectures to engineering Juniors. Mr. LORENZ.
Second semester, twice a week.

11. ALTERNATE CURRENTS AND TRANSFORMERS — Lectures. Mr. LORENZ.
First semester, twice a week.

13. ALTERNATE AND POLYPHASE CURRENT MACHINERY — Lectures. Professor VEBLEN.
First semester, twice a week.

14. DISTRIBUTION OF ELECTRICAL ENERGY; THE TELEGRAPH AND TELEPHONE; PHOTOMETRY— Lectures. Professor VEBLEN.
Second semester, four times a week.

15 (*16*). Electrical Testing and Special Laboratory Work for Seniors in Electrical Engineering. Professor VEBLEN and Mr. LORENZ.
Through the year; first semester six times a week, second semester four times.

17 (*18*). OPTICS—Lectures and laboratory work. Calculus and second year physics are prerequisites to this course. Mr. LORENZ.
Twice a week, through the year.

19. METEOROLOGY—Lectures. Professor VEBLEN.
One semester, twice a week.

21 (*22*). SEMINARY — The systematic reading of the physical and electrical journals received at the reading room of the department. Conducted by Professor VEBLEN.
Once a week.

29. HISTORY OF PHYSICS—Lectures twice a week, first semester. Mr. BOEHM.
In addition to the courses here mentioned, lectures and

laboratory instruction in special or selected topics will be given as circumstances may require or the facilities for instruction may admit. Laboratory work of any grade may be taken during either semester, two or more times a week.

C. COURSES PRIMARILY FOR GRADUATES

23 (*24*). SPECIAL RESEARCH—Open to students who have a sufficient preliminary knowledge of general physics, and who have the necessary experimental skill, acquired in a course similar to 3 and 4 above. In choosing this course the student must satisfy the instructors that he is sufficiently equipped to undertake research work; and the choice will of course be limited to such problems as the material facilities of the laboratory will make possible of solution.

25 (*26*). THEORETICAL AND PRACTICAL STUDY OF SOME PARTICULAR GROUP OF PHENOMENA OR LAWS—Such a course may consist of critical study of the literature of the subject chosen, as the electro-magnetic theory of light, polyphase currents, terrestrial magnetism, etc. In all cases experimental work will be required where it will be useful or applicable.

27 (*28*). THESIS—In all cases where physics is pursued as a major subject for an advanced degree a thesis will be required. In courses 23 and 25 above the thesis will form a very important part of the requirement. It should embody the record and results of the research or the argument and conclusions of the study. While theses will be criticised primarily with respect to their subject matter, it is expected that they will present a neat appearance and be commendable pieces of literary work.

ELECTRICAL ENGINEERING

A comprehensive view of the course in electrical engineering is inserted here for the convenience of those who may be specially interested. The course is nearly identical with those in civil engineering and in science to the end of the freshman year; and it includes the requirements in military drill in the College of Liberal Arts.

English is taken twice a week through the freshman year and three times a week in the junior year; and the foreign

languages required are French and German, each pursued one year, one in the freshman year, the other in the sophomore year.

Three years of mathematics are required. The courses taken are fully described under the department of Mathematics, and include trigonometry and algebra, analytical geometry and calculus, analytical and applied mechanics, and differential equations.

The work taken in the Department of Civil Engineering includes drawing twice a week through the sophomore year, and draughting three times a week in the senior year; also the steam engine, and strength and resistance of materials, twice a week the same year. Instruction in shop work is received during the sophomore year. Those who so elect may take shop work once a week in the freshman year, but this will not release them from the sophomore requirement in shop work.

The requirements in chemistry include one full year of general chemistry during the junior year and electro-chemistry during the second semester of the senior year.

Very nearly one-third of the work of the course is taken in the department of physics. The freshman courses 1 and 2 make up the course in general physics. Laboratory work is begun in the second semester of this year, being now of a general character, and becoming more and more strictly electrical as the student advances through the sophomore laboratory course. In the sophomore and junior courses, lectures will be given from time to time on such subjects as the construction and action of measuring instruments, methods of measurement, sources of error, etc.

Besides practical work in the laboratory throughout the junior year, the student takes courses of lectures on the theory and construction of direct current machinery, on the construction of alternators, and on thermodynamics.

The senior courses in this department require eighteen semester hours of the student's time. About half of this is given to practical work in the laboratory. The courses include mathematical and graphical treatment of alternating current theory; the study of transformers; photometry; lectures, reading, recitations, and papers on various problems of transmission and distribution of energy; telephones and tele-

graphs; problems in connection with systems of wiring, arrangement of central stations, and the like. If it seems best the student may, as part of this year, prepare a thesis, generally involving the design and construction of some piece of apparatus. The time given to each of the topics pursued and the order of presentation may vary according to the needs of different classes.

During his junior year the student is required, and in his senior year is expected, to participate in the work of the seminary. This is designed to give him acquaintance with current physical and electrical literature, and encourage systematic and critical reading of the journals. The library of the department is full and varied and is easy of access.

Attention is called also to the outline of the "Course in Electrical Engineering" under the "Courses of Study."

MATHEMATICS

PROFESSOR WELD; ASSISTANT PROFESSOR SMITH, DR. WESTFALL, MR. BECK, MR. BURTON, MR. ————

All students are required to take course 1 (*a*, *b*), course 2 (*a*), and either course 2 (*b*) or 4 (*b*). Freshmen entering at the beginning of the second semester must take courses 01 (*a*, *b*), supplementing these by courses 7 (*a*, *b*) in the second year. Course 2 (*b*) must be taken by students in engineering and should be taken by all scientific students. In addition to the above, engineering students must take courses 5 (*a*, *b*) and 6, or their equivalent, courses 8 (*a*, *b*), and 9; besides courses 37, 38, 39, 40 in mechanics.

In general, courses having odd numbers are given in the first semester; those with even numbers, in the second. Further explanations will be found in connection with the following syllabus, and in the current announcement of the Graduate College.

A. COURSES FOR UNDERGRADUATES.

1. (*a*) ALGEBRA—Exercises in the statement and solution of problems; the theory of the simple and of the quadratic equation; simultaneous systems of equations; ratio, proportion and variation; the theory of exponents; logarithms. First quarter.

(*b*). PLANE TRIGONOMETRY — Trigonometric functions and formulæ; logarithmic functions; solution of right and oblique angled triangles; practical applications to surveying, plane sailing and mensuration. Second quarter, beginning Dec. 1. Six sections: A, B and C, meeting Mon., Tu., Wed., Th. at 8:00, 9:00 and 10:00 respectively; F, G and H meeting Tu., Wed., Th., Fri., at 10:00, 1:30 and 2:30. Assistant Professor SMITH, Dr. WESTFALL, Mr. BECK, Mr. ———.

01. (*a*). ALGEBRA—The same as 1 (*a*). Third quarter.

(*b*). ALGEBRA—The same as 2 (*a*). Fourth quarter, beginning April 19.

These courses are offered to accommodate students entering at the beginning of the second semester and those who have failed to pass in the regular work of the first semester. One section, the same as F of the first semester.

2. (*a*). ALGEBRA — Arithmetical, harmonical and geometrical progressions; properties of series and the development of simple functions into series; the binomial theorem; the logarithmic and exponential series; continued fractions; permutations and combinations. Third quarter.

Four sections, the same as A, B, C, and G, of the first semester.

(*b*). ANALYTICAL GEOMETRY—Rectangular and polar coordinates; examples of loci in general, including the *graphs* of the rational integral function; the circle, ellipse, and hyperbola; tangents, normals, and asymptotes. Fourth quarter, beginning April 19.

Three sections, the same as A, B, and G, of the first semester. Assistant Professor SMITH, Dr. WESTFALL, Mr. BECK.

02. (*a*). ALGEBRA—The same as 2 (*a*). Third quarter.

(*b*). TRIGONOMETRY—The same as 1 (*b*). Fourth quarter, beginning April 19.

This course is provided for those who have failed in the Trigonometry of the first semester or who are required, for other reasons, to take the work at this time. One section, the same as H of the first semester.

4. (*b*). THEORY OF EQUATIONS—The rudiments of determinants; imaginaries; the properties of the rational integral function and their graphical representation; methods

of approximating to the roots of equations; Cardan's solution of cubics; biquadratic equations. Fourth quarter, beginning April 19.

One section, the same as C of the first semester. Mr. BECK or Mr. ———.

5. (*a*). ANALYTICAL GEOMETRY—The discussion of the general equation of the second degree in two variables; higher plane curves; analytic geometry of three dimensions. First quarter.

(*b*). DIFFERENTIAL CALCULUS — A course in elementary calculus to be continued through the year. Second quarter, beginning December 1.

Two sections: A, meeting Mon., Tu., Wed., Th., at 8:00; B, meeting Tu., Wed., Th., Fri., at 10:00. Assistant Professor SMITH and Dr. WESTFALL.

6. DIFFERENTIAL AND INTEGRAL CALCULUS — A continuation of 5 (*b*). The fundamental principles of the calculus are studied and applied to the solution of problems in geometry, mechanics, etc.

Second semester. Two sections, the same as those of course 5. Assistant Professor SMITH and Dr. WESTFALL.

7. (*a*). PLANE TRIGONOMETRY—The same as course 1 (*b*). First quarter.

(*b*). THEORY OF EQUATIONS—The same as course 4 (*b*). Second quarter, beginning December 1.

One section, D or E, meeting Mon., Tu., Th., Fri., at 11:00 and 2:30 respectively. Mr. BECK or Mr. ————.

8. ANALYTICAL GEOMETRY — The same as courses 2 (*b*) and 5 (*a*). Students may, if desired, pass from this course to 4 (*b*), at the beginning of the fourth quarter, April 19.

Second semester; one section, the same as D or E of course 7.

9. DIFFERENTIAL AND INTEGRAL CALCULUS—A course arranged especially for students not intending to specialize in mathematics.

First semester. One section, the same as E or D of course 8. Assistant Professor SMITH, Dr. WESTFALL, or Mr.——

11. THEORY OF EQUATIONS—This course and course 12 are not open to freshmen. They should be taken in connection with courses 13 and 14 by those who have not already studied the subjects and who intend to specialize in mathematics.

First semester, one hour a week; Tu., Th., or Sat., at 9:00. Dr. WESTFALL.

12. (*a*) SPHERICAL TRIGONOMETRY. (*b*) ANALYTICAL TRIGONOMETRY AND HYPERBOLIC FUNCTIONS—See course 11. Second semester, one hour a week; Tu., Th., or Sat., at 9:00. Dr. WESTFALL.

37 (*38*). ANALYTICAL MECHANICS—*Statics:* Composition and resolution of forces, the funicular polygon, center of gravity, moment of inertia, friction, etc. *Kinetics:* Rectilinear motion, projectiles, constrained motion of a particle, the pendulum, etc. Supplemented by course 39 (*40*) in applied mechanics. Throughout the year; Mon., Wed., at 11:00. Assistant Professor SMITH.

39 (*40*). APPLIED MECHANICS—Resistance and elasticity of materials, cantilever, simple and continuous beams, columns, strength of shafts, transmitting power, combined stresses, strength of materials used in construction, the principles of resilience, tension, compression, shear, and torsion. The subjects outlined will be studied from a practical as well as a theoretical standpoint and results and formulæ will be tested by supplementary work in the engineering laboratories. See courses 37 (*22*).

Throughout the year; Tu., Th., at 11:00. Assistant Professor SMITH.

B. COURSES OPEN TO GRADUATES AND UNDERGRADUATES

13. ADVANCED CALCULUS—A continuation of the elementary courses in calculus, devoted particularly to such topics as the extension of Taylor's series, the series of Lagrange, maxima and minima of functions of two or more variables, transformations of differential equations, variations, etc. Dr. WESTFALL.

First semester; Mon., Wed., Fri., at 9:00.

14. DIFFERENTIAL EQUATIONS—An elementary course

devoted to the methods of solution of ordinary differential equations. Open to all students who have completed the elements of the calculus. Dr. WESTFALL.

Second semester; Mon., Wed., Fri., at 9:00.

16. THE MATHEMATICAL THEORY OF INSURANCE—This and course 18 will be given in alternate years. Dr. WESTFALL.

Second semester; Tu., Th., at 2:30.

17. THE METHOD OF LEAST SQUARES, with numerous applications to the reduction of series of physical observations. Assistant Professor SMITH.

First semester; Tu., Th., at 2:30.

18. THE THEORY OF SURFACES, with problems. This and course 16 will be given in alternate years. Dr. WESTFALL.

Second semester; Tu., Th., at 2:30.

[19 (*20*). DETERMINANTS AND MODERN GEOMETRY—Determinants, the theory of quantics; the principle of invariance; modern and analytical geometry of two and of three dimensions. Professor WELD.

Throughout the year; Tu., Th., at 8:00.]

This course will not be given in 1903–1904.

21 (*22*). THE THEORY OF FUNCTIONS — Lectures, the works of Durége, Harkness, and Morley, and others being used by the student for collateral reading. Professor WELD.

Throughout the year; Tu. Th., at 8:00.

23. DEFINITE INTEGRALS, including a discussion of the *Beta* and *Gamma* functions. Lectures. Professor WELD.

First semester; Tu. Th., at 11:00.

24. ELLIPTIC INTEGRALS AND FUNCTIONS—Lectures, with problems and practical applications. Professor WELD.

Second semester; Tu. Th., at 11:00.

41 (*42*). THEORETICAL MECHANICS—Problems in statics and dynamics; virtual velocities; the principle of least action; the dynamics of a particle, with special reference to orbital motion; the theory of attraction. Assistant Professor SMITH.

Throughout the year; Tu. Th., at 8:00.

51 (*52*). THE MATHEMATICAL SEMINARY is conducted for

the benefit of students making a special study of mathematics, and is open to all who have completed elementary calculus. The topics upon which papers are prepared under the direction of the several instructors are such as are suggested by the regular work of the various courses.

Throughout the year; Wednesday evening.

C. COURSES PRIMARILY FOR GRADUATES

27 (*28*). THEORY OF THE POTENTIAL AND SPHERICAL HARMONICS—The potential function; Laplace's equations of continuity in rectangular, cylindrical, and spherical coördinates; Green's transformation; velocity potential; plane wave motion; Fourier's series and integral; application of Fourier's series to problems in acoustics, heat, and electricity; physical problems involving cylindrical, zonal, and spherical harmonics. Professor WELD.

Throughout the year; Mon., Wed., Fri., at 11:00.

31. DIFFERENTAL EQUATIONS — An advanced course, which must be preceded by courses 13 and 14. Dr. WESTFALL.

First semester; Tu. Th., at 9:00.

[34. VECTOR ANALYSIS—Lectures and collateral reading. Professor WELD.

Second semester; Tu. Th., at 8:00.]

This course will not be given in 1903–1904.

[43 (*44*). HYDROMECHANICS — Laws of pressure, equilibrium and oscillation of floating bodies; conditions of equilibrium of a mass of rotating fluid, with application to the figure of the earth; equations of motion of a perfect fluid; waves; the motion of a solid in a fluid medium. Assistant Professor SMITH.

Throughout the year; Tu. Th., at 8:00.]

This course will not be given in 1903–1904.

THE LOWDEN MATHEMATICAL PRIZE.

Competition for the Lowden Mathematical Prize of fifty dollars ($50.00) for excellence in mathematics, established by Mr. Frank O. Lowden, of Chicago, is open to all students who are about to complete in course the work of the freshman and sophomore years in mathematics, the last year

of such work having been done at this University in the regular classes.

The examination upon which the prize is to be awarded will be conducted by the professor of mathematics, and will be held in May, not later than the second Saturday preceding the opening of commencement week. Candidates should prepare for examination in the following subjects: Algebra, plane trigonometry, analytical geometry of two dimensions, the elements of differential and integral calculus.

The prize will be awarded by a committee, the members of which shall be the professors of mathematics, engineering, and physics in the State University of Iowa, and two others to be appointed by the President of the University. It may be equally divided between not more than two candidates, or may be withheld if it shall appear that the work of no candidate is of a superior order of merit.

ASTRONOMY

PROFESSOR WELD

The courses in astronomy are open to all sophomores, juniors, and seniors. Those here offered may be taken simultaneously or in succession. Others will be added as soon as necessary arrangements can be made. The University is provided with a small but well equipped students' observatory. (See *Material Equipment*).

1 (*2*). GENERAL ASTRONOMY—A course of lectures on descriptive astronomy for the general student. This course may be supplemented by course 1 (*2*) in geology, which is given at the same hour, on Tuesdays and Thursdays.

Three lectures a week, throughout the year; Mon., Wed., Fri., at 9:00.

3 (*4*). PRACTICAL ASTRONOMY—The student is taught the use of the sextant, transit instrument, clock, chronograph, etc.; the arrangement of the *American Ephemeris and Nautical Almanac;* and the general principles of time, latitude, longitude, and azimuth determination.

Throughout the year; Tu., Th., at 9:00; supplemented by work at the observatory.

CIVIL ENGINEERING

PROFESSOR SIMS; ASSISTANT PROFESSOR MAGOWAN, MR. LAMBERT, MR. HAYLER.

The civil engineering and general scientific courses are practically identical throughout the freshman year, and changes may be made from one of these courses to the other until the beginning of the sophomore year; but after this time no subjects can be substituted for the required civil engineering studies without the approval of the professor in charge, and special permission of the faculty. Students in one class will not be allowed to take subjects in an advanced class without permission of the professor in charge.

So far as possible instruction is given by recitation from text-books. But where this method is not practicable, as in limes and cements, and in some of the subjects treated under the head of Civil Engineering, the first part of the recitation period is devoted to a quiz, and the remainder to a lecture.

It is expected that the University will inaugurate a regular course in municipal and sanitary engineering, and it is intended that such changes in the civil engineering course will be arranged in the coming year as will permit students to specialize along these lines.

Saturdays, throughout the last three years of the course, are devoted to work in the field, shop, and laboratories, in making surveys, testing materials, constructing models, photography, and blue-printing.

For all work requiring no special preparation outside of the class room, such as drawing, field work, laboratory exercises and some of the work in graphical statics, not less than two hours will be required for one hour of credit.

FRENCH OR GERMAN—See courses 1, 2, under French, and courses 1, 2, under German. (See index).

Freshman year; five hours a week.

MATHEMATICS—See courses 1, 2, and 5, 6, or 8, 9 under Mathematics. (Pages 175, 176).

Freshman and sophomore years; four hours a week.

PHYSICS—See courses 1, 2, 5, and 6, under physics, pages 170-172.

Freshman year four hours a week, and junior year, first semester, four hours a week, second semester, two hours a week.

1 (*z*). DRAWING — For general scientific, electrical, mining, and civil engineering students. The course comprises mechanical and free hand drawing; oblique, isometric, cabinet, and orthographic projections, and lettering. Linear perspective, shades, and shadows. The work is given principally by means of personal instruction. The preliminary principles are studied from text and reference books, and their application is employed in making drawings from natural objects, models, and machinery. Mr. LAMBERT, and Mr. HAYLER.

Freshman year; two hours a week.

ENGLISH—See courses 1, 2, and 21, 22, under English.

Sophomore year; two hours a week, and junior year three hours a week.

3. SURVEYING, MAPPING, AND LETTERING—For civil and mining engineering students and comprises the construction, adjustment, and use of the compass, solar compass, level, transit, and plane-table. Recitations, lectures, and field work, making profiles, leveling, and drainage surveys. A section of land is surveyed and the location of all natural and artificial features determined and noted.

Pen topography, including the making of topographical symbols; platting of section survey from notes taken during the previous term, and making a finished map of the same. United States public land surveys, determination of true meridians, and of the rules and Supreme Court decisions governing resurveys and relocations of lost or obliterated corners. This work is followed by a course in free hand on machanical lettering. Assistant Professor MAGOWAN, and Mr. LAMBERT.

Sophomore year, first semester; 5 times a week.

CHEMISTRY—See courses 1, 2, under Chemistry, page 168.

Sophomore year, first semester; four hours a week.

GEOLOGY—See course 1, 2, under Geology, pages 164-165.

Sophomore year; two hours a week.

4. DESCRIPTIVE GEOMETRY, AND TOPOGRAPHICAL SURVEYING—After the completion of course 2, this course is taken up and includes, in the descriptive geometry, work in problems on the point, line, plane, simple geometrical solids, shades, shadows, single and double curved and warped surfaces, generation and development, and the solution of various practical problems, illustrated by models. In topographical surveying the work includes a study of the adjustments and methods of use of the stadia, gradienter, and plane table, etc., and the making of finished contour maps from notes of surveys made by the students, with above mentioned instruments. During the winter months the time is devoted largely to descriptive geometry and drawing and in the spring and early summer to field work in topographical surveying. Assistant Professor MAGOWAN, and Mr. LAMBERT.

Sophomore year, second semester; four times a week.

5. RAILWAY CURVES AND EARTH WORK—A study of simple and compound curves and turnouts, and the methods of laying out, measuring and computing earth work and over-haul. Enough practice is given to familiarize the student with the methods employed in the field. Assistant Professor MAGOWAN, and Mr. LAMBERT.

Sophomore year, second semester; two hours a week.

6 (7). SHOP WORK—In this course work is taken up systematically and each student is required to finish in a satisfactory manner a specified number of pieces of work on each machine-tool and at the bench. The main object of the course is to familiarize the student with the nature, strength and properties of materials, and the methods employed by the mechanic artist rather than to have him attain skill as a workman. Mr. Sheff.

Sophomore year, second semester, two times a week; and junior year, first semester, two times a week.

ANALYTICAL AND APPLIED MECHANICS—See course, 37, 38, 39, and 40 in mathematics, page 177.

Junior year, first semester, four hours a week; second semester, three hours a week.

9 (10). GRAPHICS — The course is so arranged that the

study of the graphical method of determining stresses is taken up simultaneously with the analytical method, it being the intention to assist the student to secure a mental photograph of the amount and kind of stress in the various members of structures, and thus provide him with a ready and impressive means of their comparison. The analysis, by this method, of roof trusses is first taken up, followed by that of the plate girder, simple, cantilever, and swing bridges, with parallel and inclined chords, under various conditions of loading as required in the standard specifications, both for actual wheel concentrations and equivalent uniform loads; after which a course in metal and masonry arches is given. Assistant Professor MAGOWAN, and Professor SIMS.

Junior year, first semester, two hours a week; second semester, four hours a week.

11 (*12*). THEORY OF STRESSES—Including the analytical determination of stresses and strains in all the structures analyzed by the graphical method. See Graphics. Much time and study are devoted to this important subject. Assistant Professor MAGOWAN.

Junior year, first semester, two hours a week; second semester, four hours a week.

13. LIMES AND CEMENTS—The instruction in this subject consists in assigned references, and a course of lectures on the principal properties of limes, hydraulic limes, and natural and artificial cements, with a general discussion of the nature and uses of concrete, followed by laboratory work. Each student is required to make and test briquettes of various cements, which will be furnished him for the purpose, and to calculate their relative value per unit of strength. Professor SIMS.

Senior year, first semester; two hours a week.

15. STEAM ENGINE AND LOCOMOTIVE — The subject is treated under four heads, Heat, Steam, Engine, and Boiler. Under Heat is treated the economic combustion of fuel; under Steam the physical properties and the energy contained; under Engine the modern types of simple and compound engines are discussed, with special reference to the locomotive. The students are given practical problems and are

required to ascertain the indicated horse-power from actual indicator cards, and to determine the efficiency of various engines from assigned data. The modern types of boilers are then discussed. Compressed air is also considered in connection with the transmission of power. Professor SIMS.

Senior year, first semester; two hours a week.

17. SANITARY ENGINEERING — The work offered under this course includes principally sewers and sewerage, and the cleaning of cities and towns. The separate and combined systems of sewers are studied and discussed. The details of various sewer systems, as set forth in plans and specifications for their construction, are carefully studied. The cost of construction, as taken from current contract prices, is especially noted, and the arrangement and action of plumbing fixtures are incidentally studied. The growing importance of this subject is fully realized, and it is the intention to keep the instruction fully abreast of the demands and needs of the present, and, when possible, anticipate future needs and methods. Assistant Professor MAGOWAN.

Senior year, first semester; two hours a week.

19 (*20*). STRUCTURAL DESIGNING — Prior to the work of designing proper, the students are required to make tracings or drawings of existing structures and compare the sections and connections of the various members with standard specifications. This work is followed by the design of trestles, highway and railway bridges, dams, foundations, etc., of which complete working drawings are made. Professor SIMS.

Senior year; three hours a week.

21 (*22*). CIVIL ENGINEERING — This subject is given by recitations and lectures, and is designed for the purpose of instruction in the practical application of the theoretical principles of civil engineering. The regular recitations and lectures are frequently interrupted by designs and estimates of the cost of the work under discussion. The subjects are treated with thoroughness commensurate with their relative importance and are: railway reconnaissance and location; theory of maximum economy in grades and curves; location of highways and resistance to traction thereon; hydrography; building materials; natural and artificial

stones; quarrying and blasting; reaching deep foundation beds in earth, quick sand, water and silt, with pneumatic tubes, caissons and coffer dams, and by the Poetsch-Sooysmith freezing process; ordinary earth work and methods of computation; masonry, classification of and specification for; theory and practice of retaining walls; earth, loose rock, and high masonry dams and weirs; the construction of brick, masonry, and concrete arches; tunneling and the use of explosives; highway and street construction; railway construction and maintenance of way; improvement of rivers and harbors, and canal transportation; street railways, and comparison of street railway motors. Professor SIMS.

Senior year; three hours a week.

23 (*24*). LABORATORY — This course includes instruction and practice in more advanced methods of testing and original investigation; selection and preparation of specimens, the influence of cross section on unit stress under various conditions, the distribution of stress in the materials of construction, the determination of resistance, the construction of models of bridges and other structures. Professor SIMS.

Senior year; two hours a week.

25. SPECIFICATIONS AND CONTRACTS—A study of various standard specifications, and a discussion of the effect of general clauses in contracts of same. Assistant Professor MAGOWAN.

Senior year, first semester; two hours a week.

26. RESISTANCE OF MATERIALS—For civil, electrical, and mining engineers. This subject includes the strength, resistance, and properities of engineering materials, their behavior under stress, and the demonstration of the experimental laws, ultimate strength, elastic limit, modulus of elasticity, resilience, etc., by tests in the laboratory. Professor SIMS.

Senior year, second semester; two hours a week.

28. HYDRAULICS—Instruction in this work is given by means of lectures, recitations, and laboratory work. The course includes the weight and pressure of water; head and center of pressure; computation and measurement of velocity and discharge through orifices, weirs, pipes, conduits, canals, and rivers; the investigation of meters and motors, and

the determination of water power. Assistant Professor MAGOWAN.

Senior year, second semester; three hours a week.

30. WATER SUPPLY ENGINEERING—A study of the methods of collecting, storing, purifying, and distributing water. Assistant Professor MAGOWAN.

Senior year, second semester; three hours a week.

32. THESIS—At the close of the spring term of the senior year, an acceptable original thesis will be required from each student before graduation, unless equivalent work shall have been done on papers prepared for the Engineering Society. Professor SIMS.

MILITARY SCIENCE AND TACTICS

COLONEL GEORGE RITTER BURNETT

Instruction in these branches is prescribed for all male students of the College of Liberal Arts, except such as are especially excused. Students who, for any valid reason, may desire to be excused, must appear in person before the military committee, consisting of the commandant, assistant commandant, and four student captains, on the first drill day of each term, at the Armory, at 3:30 p. m. Those claiming exemption on account of physical disability, when the same is not apparent, must present to the committee a certificate certifying to the same, from the battalion surgeon. Students desiring to be excused from military duty at the time of their entrance or at any future time, on the grounds of service in the Spanish-American War, or at some recognized military institution, must present their discharge papers or credentials at the time of matriculation. All students not specially excused will report to the commandant on the Monday immediately following the beginning of the term, at the Armory, at 4:30 p. m.

ORGANIZATION

The department is organized for instruction into an infantry battalion, consisting of four companies, a band, and the necessary staff officers. The commissioned officers are selected from the senior, the sergeants from the junior, and the corporals from the sophomore class. The officers and

non-commissioned officers are selected for character, military record, knowledge of drill regulations, and general aptitude.

UNIFORM

The prescribed uniform, known as the undress or fatigue uniform, consists of a dark blue suit, and, with the regulation army cap and white gloves, is worn on all occasions when on duty. The above uniform can be procured either before or immediately after entrance. Uniforms can be obtained in the vicinity at a cost of from $10.50 to $13.50.

COURSES OF INSTRUCTION

Courses of instruction are both practical and theoretical.

The *practical* course is as follows: Infantry Drill Regulations through the school of the battalion in close and extended order. Advance and rear guards, and out-posts. Marches. The ceremonies of battalion review, inspection, parade, guard-mounting and Escort to the Colors. Infantry target practice. Instruction in first aid to the injured.

The practical instruction in infantry drill, for all classes, will be given three hours a week during the spring and fall terms, and one hour a week during the winter term, from 4:30 to 5:30 P. M.

Target practice, after preliminary instruction in gallery practice, in the Armory is had, will take place on the University Range, to the extent of the allowance of ammunition, on favorable afternoons, during the fall and spring terms at such hours as the commandant may deem most convenient.

First aid to the injured will be given during the winter term, in the Armory, as part of the regular drill.

The *theoretical* instruction will only be given during the winter term, and will consist of two hours recitation a week, for each class, in the afternoons, at such hours as the commandant may arrange. The freshmen will be instructed in the United States drill regulations; the sophomores in The Manual of Guard Duty; the Juniors in The Small-arms Firing Regulations, Parts 1, 2, and 7, and in the Articles of War, with special reference to certain paragraphs designated

by the War Department; and the seniors in keeping the following records: enlistment and discharge papers, including descriptive lists; morning reports; field and monthly returns; muster rolls; rosters; ration returns; requisitions; property returns. The Seniors may also be required to act as assistant instructors.

Aside from the seniors selected for commissioned officers, the work of the fourth year is optional.

The professor of Military Science and Tactics may, in his discretion, substitute for a part of the theoretical instruction, lectures on subjects of military interest, not to exceed one a week.

One and two-thirds semester credits will be allowed for each year of military work, provided at least three years, of the full course are taken.

The credits allowed for the military course are essential to graduation, and cadets who, for any reason, are excused from this work, must earn an equivalent amount in electives, offered by the College of Liberal Arts.

ORGANIZATION OF THE MILITARY DEPARTMENT

THE BATTALION — 1902–1903

Colonel George Ritter Burnett, - - Commandant.
Major R. M. Anderson, - - Assistant Commandant

COMMISSIONED STAFF

Major A. A. Knipe, - - Physical Director, Surgeon
Major H. E. Hadley, - Inspector of Rifle Practice
Captain J. F. Kirby, - - Quartermaster and Armorer
First Lieutenant A. K. Hess, - - - Adjutant
First Lieutenant I. L. Reed, - Commissary Officer
First Lieutenant W. L. Baughn, - Ordnance Officer

NON—COMMISSIONED STAFF

J. G. Berryhill, Jr., - - - - Sergeant-Major
C. O. Briggs, - - - - Quartermaster Sergeant

COLOR GUARD

B. F. Wyland, - - - - - Color Sergeant
P. D. Macbride, }
L. W. Swords } - - - - Color Corporals

COMPANY A

F. Nugent, - - - - - - - Captain
R. D. Krebs, - - - - - First Lieutenant
C. A. Dykstra, - - - - Second Lieutenant
B. A. Moffatt, - - - - - First Sergeant
1 E. R. Johnston,
2 J. W. Cogswell,
3 A. W. Lauer, - - - - - - Sergeants
4 H. D. Willis,
5 C. V. Kent,
1 B. S. Allen,
2 H. H. Phelps,
3 H. E. Boies,
4 F. S. Beatty, - - - - - - Corporals
5 R. R. Randall,
6 R. B. Champion,
7 L. McAuliff,

COMPANY B

M. R. Charlton, - - - - - - Captain
J. W. Fish, - - - - - First Lieutenant
H. M. Pratt, - - - - Second Lieutenant
C. R. Cross, - - - - - First Sergeant
1 F. W. Coffin,
2 C. R. Davis,
3 R. J. Meakin, - - - - - - Sergeants
4 S. H. McCrory,
5 R. S. Cushing,
1 J. F. O'Connell,
2 A. C. Gordon,
3 W. C. Wright, - - - - - Corporals
4 F. E. Snedicor,
5 H. C. Danielson,
6 P. Dorweiler,

COMPANY C

H. E. Spangler, - - - - - - Captain
H. G. McClain, - - - - - First Lieutenant
C. H. Edmonson, - - - - Second Lieutenant
W. F. Hellberg, - - - - - First Sergeant

1 H. P. Burgum,
2 M. A. Royal,
3 H. L. Dye,
4 R. H. Edgerton,
5 M. W. Emmert, - - - - Sergeants

1 G. A. Drake,
2 D. F. Steck,
3 H. E. Young,
4 C. E. Moffitt,
5 V. T. Neander,
6 H. C. Anderson, - - - - Corporals

COMPANY D

H. C. Watson, - - - - - - Captain
J. G. Walsh, - - - - - First Lieutenant
C. F. Kemmerer, - - - - Second Lieutenant
C. P. Schenck, - - - - - First Sergeant

1 F. D. Kern,
2 E. R. Jackson,
3 R. E. Kleinsorge,
4 W. H. White,
5 E. J. Barker, - - - - Sergeants

1 W. W. Fay,
2 E. C. Barrett,
3 R. H. Finkbine,
4 H. L. Phelps,
5 R. G. Davies,
6 D. J. Fitz,
7 G. P. West, - - - - Corporals

THE BATTERY

J. A. Matson, - - - - - - Captain
H. M. Ivins, - - - - - First Lieutenant
H. W. Brackney, - - - - Second Lieutenant
H. L. Bryson, - - - - - First Sergeant
O. V. Wille,
C. F. Lambert, - - - - Chief of Sections
G. L. Marick,
C. W. Knapp, - - - - - Gunners

THE BAND

Captain O. A. Kuck, - - - - Director
E. E. Carlson, - - - - - Chief Musician

W. McD. Ball, - - - - Principal Musician
F. S. Mohlsbury, - - - - Drum Major

Military Field Day, May 22

The "Coast Sword" awarded annually to the Captain of the best drilled Company, was won by Captain F. G. Emery, Company "D".

The "George R. Burnett Gold Medal" for superiority in marksmanship for 1902, was awarded to Major R. M. Anderson, Assistant Commandant.

The "H. J. Wieneke Gold Medal" for excellence in Artillery drill for 1903, was awarded to Captain H. E. Hadley, commanding the Battery.

The "C. Yetter Gold Medal" No. 1 for the best drilled Junior in 1903, was awarded to Cadet Sergeant J. W. Fish, Company "B".

The "C. Yetter Gold Medal" No. 2 for individual superiority in drill among the Sophomores, was awarded to Cadet Corporal B. A. Moffat, Company "A".

The "Sueppel Gold Medal" for individual excellence in drill, competed for by the Freshmen, was awarded to Cadet Max W. Emmert, Company "C".

PHYSICAL TRAINING

DR. KNIPE, AND MISS KASTMAN.

In view of the inadequate gymnasium facilities, as yet there is no physical training required of men, but in the various athletic sports a large number of men receive attention.

Classes in physical training are provided for women under the instruction of Miss Kastman. Each section meets three times a week. This work is required of all women of the freshman and sophomore classes in the College of Liberal Arts, and of unclassified students whose work is with these classes. Students may, however, be excused by the faculty for physical disability, certified to by a physician, or on account of outside work which the student must do to earn her living and which conflicts with the hours scheduled for physical training classes. Petitions for such excuses should be presented to the Dean of Women.

Credit will be allowed for the two years of required work in this subject.

Women in the upper classes and in the other colleges will be allowed to elect this work, without credit, unless there is not room for them in the classes provided.

UNIFORM

Each student must provide herself with a gymnasium suit to be worn during all class exercises in this subject. It must be made of black alpaca or serge, with full bloomers, and blouse waist with sailor collar opening in V-shape at the neck over a chemisette of white pique or other washable material. There must be no braid or other trimming. Butterick's pattern number 4509 may be used as a guide in making the suit. A plain black belt, black stockings, and gymnasium shoes complete the costume.

ACCREDITED HIGH SCHOOLS

The Board of Regents has adopted the following plan for the examination of high school pupils and for general high school inspection:

1. Any school may be placed upon the accredited list upon application of its superintendent or principal, and its board of directors, provided the Faculty of the College of Liberal Arts is satisfied as to its (*a*) course of study, (*b*) methods of teaching, (*c*) facilities for instruction.

2. The course of study of such a school must be adapted to fitting its graduates for one or more of the collegiate courses of the University, or it must be in the direct line of such preparation.

3. Whenever any accredited or other school requests it, its pupils may be examined by the University at a convenient time in any subject or subjects selected by the school authorities from the schedules of studies required for admission to the University, and each pupil will receive from the University a credit card for each subject passed.

4. The University shall provide for schools desiring the same, a syllabus of each of the subjects in which examination is to be taken.

5. All accredited schools shall be inspected at the pleasure of the University, the expense of the inspection to be borne by the University.

6. The authorities of accredited schools should report annually to the University all changes made in the courses of study and submit a list of names of the instructors employed in the high school with subjects taught by each.

The following revised rules governing the accrediting of high schools have been adopted by the Faculty of the College of Liberal Arts, and are now in force. The attention of the authorities of accredited schools is called to the revised rules in order that they may make such changes in their courses of study and in their plans of work as will enable them fully to conform to the rules.

RULES GOVERNING THE ACCREDITING OF HIGH SCHOOLS

High Schools meeting the following conditions may, at the option of the Faculty of the College of Liberal Arts, be accredited as making full preparation for one or more College courses; and graduates of such schools will be admitted to the University without being subject to any examination except that in English and English grammar, which is required of all entering students:

1. The course of study should not be less than four years of thirty-six weeks each in length, following an elementary course not less than eight years in length.

2. The course of study should require of each pupil not more than four recitations daily.

3. The entire time of at least three teachers should be given to instruction in high school branches.

4. The quality of the instruction given and the character of the text-books used should be approved by the Faculty.

5. Schools seeking considerable credit in science should demonstrate their ability to do successful laboratory work.

6. Schools seeking considerable credit in History and English should give evidence of a special library equipment for teaching these branches.

Private academics, seminaries, normal schools, or other secondary schools, meeting the conditions mentioned above, or their equivalent, may be accepted on the same basis as high schools.

LIST OF ACCREDITED SCHOOLS

There are doubtless other schools which are entitled to places on one or the other of these lists, but because they have not furnished the data necessary to enable the University authorities to come to a safe conclusion in regard to their proper places in the lists, or because they have not signified a desire to come into accredited relations with the University, they are for the present omitted, without prejudice. Applicants presenting themselves from secondary schools, not included in the list of accredited schools, will be admitted only upon examination.

The following schools have been accredited by the Faculty of the College of Liberal Arts as making full preparation for one or more of the courses of the College of Liberal Arts:

HIGH SCHOOLS

Ackley,
Adel,
Albia,
Algona,
Ames,
Anamosa,
Atlantic,
Avoca,
Bedford,
Belle Plaine,
Boone,
Britt,
Brooklyn,
Burlington,
Capital Park, Des Moines,
Carroll,
Cedar Falls,
Cedar Rapids,
Centerville,
Charles City,
Cherokee,
Clarinda,
Clarion,
Clinton,
Columbus Junction,
Corning,
Corydon,
Council Bluffs,
Cresco,
Creston,
Davenport,
Decorah,
Denison,
Des Moines, E.,
Des Moines, N.,
Des Moines, W.,
Dubuque,
Eagle Grove,
Eldora,
Emmetsburg,
Estherville,
Fairfield,
Forest City,
Fort Dodge,
Fort Madison,
Geneseo, Ill.,
Glenwood,
Greene,
Greenfield,
Grinnell,
Guthrie Center,
Guthrie County,
Hamburg,
Hampton,
Harlan,
Humboldt,
Ida Grove,
Independence,
Iowa City,
Iowa Falls,
Jefferson,
Keokuk,
Knoxville,
Lake City,
Lamoni,
LeMars,
Leon,
Lyons,
Manchester,
Maquoketa,
Marengo,
Marion,

Marshalltown,
Mason City,
McGregor,
Missouri Valley,
Moline, Ill.,
Montezuma,
Monticello,
Mt. Ayr
Muscatine,
Nashua,
Nevada,
New Hampton,
Newton,
Odeboldt,
Oelwein,
Onawa,
Orange City,
Osage,
Osceola,
Oskaloosa,
Ottumwa,
Parkersburg,
Perry,
Red Oak,
Reinbeck,
Rockford,
Rock Rapids,
Sanborn,
Sheldon'
Shenandoah,
Sibley,
Sigourney,
Sioux City,
Spencer,
St. Mary's, Iowa City,
Storm Lake,
Stuart,
Postville,
Tailor Tp., Tailorville, Ill.,
Tipton,
Traer,
Villisca,
Vinton,
Washington,
Waterloo, East,
Waterloo, West,
Waukon,
Waverly,
Webster City,
West Liberty,
Wilton,
Williamsburg,

OTHER SCHOOLS

Cedar Valley Seminary, Osage,
Charles City College,
Decorah Institute,
Denison Normal School,
Dexter Normal College,
Epworth Seminary,
Howe's Academy, Mt. Pleasant,
Iowa City Academy,
Jewell Lutheran College, Jewell,
Lincoln Academy, Lincoln, Neb.,
Michigan Military Academy, Orchard Lake, Mich.,
Mount St. Joseph Academy, Dubuque,
Sac City Institute,
St. Agatha's Seminary, Iowa City,
St. Francis Academy, Council Bluffs,
Washington Academy,
Whittier College, Salem,
Wilton German - English College,
Woodbine Normal School.

The work done in the schools named below is regarded as of sufficient merit to entitle them to recognition by the University.

In some of these schools enough work is done to entitle their pupils to enter the University with the conditions allowed. In some cases applications have been made to be placed upon the accredited list, but action on these applications has been deferred until these schools can be inspected by a representative of the University.

All accredited schools having but two teachers in the high school are expected to work under the rules prescribed for such schools by the University and the colleges of the state. These rnles are set forth at length in Bulletin No. 2 of the Department of Education, a copy of which will be sent on application.

Properly certified work from these schools will be received for the present so far as this work meets the preparatory requirements of the University.

Adair,
Allerton,
Alton,
Anita,
Audubon,
Bloomfield,
Brighton,
Chariton,
Charter Oak,
Clearfield,
Clear Lake,
Colfax,
Coon Rapids,
Correctionville,
De Witt,
Dysart.
Eldon,
Elkader,
Exira,
Farmington,
Fayette,
Fonda,
Fontanelle,
Garner,
Glidden,
Grand Junction,
Grundy Center,
Hartley,
Holstein,
Hubbard,
Keosauqua,
Kingsley,
Lake Mills,
Lime Springs,
Manning,
Mapleton,
Mechanicsville,
Milton,
Morning Sun,
Moulton,
Mt. Pleasant,
Neola,

New Sharon,
North English,
Northwood,
Oak Park, Des Moines.
Pella,
Riceville,
Richland,
Rolfe,
Sac City,
Shelby,
Shell Rock,
Sioux Rapids,
Springdale,
Springville,
State Center,
Tabor,
Tama City,
Victor,
Wapello,
West Union,
Winfield,
Calhoun Co. Normal School,
Hawarden Normal School,
Nora Springs Seminary,
St. Ansgar Seminary.

UNIVERSITY EXTENSION

The University of Iowa was among the first in the United States to attempt to popularize higher education by organizing courses of lectures by University professors at points remote from the Institution. For years this work has been carried forward with no small success in all the more important cities of Iowa. As will be seen by reference to the special Announcement on this subject, the University seeks to meet a two-fold demand for public addresses; it aims to give courses of popular lectures; and it offers special service to the high schools of the State in the way of special lectures on various high school topics, as well as addresses suitable for various special occasions, high school anniversaries, commencements, etc.

The University of Iowa owing to limited resources does not attempt at present to organize classes which shall accomplish work leading to University credits or degrees, but it does offer series of lectures, often fully illustrated by apparatus and stereopticon, which serve to bring before a popular audience the very latest and best results of research and discovery in every department of human learning. Within certain obvious limits, all the best that is offered at Iowa City is at the service of every community in Iowa.

As far as courses of lectures are concerned, these are generally presented in each community before some local organization, a church society, an organization of University alumni, of college people, or simply of those desiring a course of lectures. All interested are referred to the Announcement of University Extension Lectures, to be had by addressing the President of the University.

For High School addresses special arrangement may be made with the University Inspector of schools, Professor J. F. Brown; or, the Director of University Extension may be addressed.

GRADUATE COLLEGE

THE GRADUATE COLLEGE

*FACULTY

GEORGE EDWIN MACLEAN, B. A., 1871; M. A., 1874, Williams; B. D., 1877, Yale; PH. D., 1883, Leipzig; LL. D., 1895, Williams.
President, 1899.† 603 College St. (2 Old Capitol)

AMOS NOYES CURRIER, B. A., 1856; M. A., 1859, Dartmouth; LL. D., 1893, Des Moines.
Professor and Head of the Department of Latin Language and Literature, and Dean of the College of Liberal Arts, 1867.
32 Bloomington St. (108 Liberal Arts)

SAMUEL CALVIN, M. A., 1874, Cornell College; F. G. S. A., PH. D., 1888, Lenox.
Professor and Head of the Department of Geology, 1874.
522 N. Clinton St. (Science Hall, first floor)

THOMAS HUSTON MACBRIDE, B. A., 1869; M. A., 1873, Monmouth; PH. D., 1895, Lenox.
Professor and Head of the Department of Botany, 1878.
728 Washington St. (Science Hall, second floor)

LAUNCELOT WINCHESTER ANDREWS, B. PH., 1875, Yale; M. A., PH. D., 1882, Goettingen.
Professor and Head of the Department of Chemistry, 1885.
251 S. Johnson St. (Chemical Laboratory)

‡GEORGE THOMAS WHITE PATRICK, B. A., 1878, Iowa; B. D., 1885, Yale; PH. D., 1888, Johns Hopkins.
Professor and Head of the Department of Philosophy, 1887.
704 N. Dubuque St. (209 Liberal Arts)

CHARLES BUNDY WILSON, B. A., 1884; M. A., 1886, Cornell University.
Professor and Head of the Department of German Language and Literature, 1888. 311 N. Capitol St. (101 Liberal Arts)

*The faculty of the University numbers over one hundred and eighty professors, instructors, and assistants. The following list contains the names of those in the departments offering courses of instruction for graduate students.

†Date following title indicates year of appointment to service in the University. The names are arranged in groups according to seniority of appointment to present rank.

‡Absent on leave in Europe, 1902-3.

ANDREW ANDERSON VEBLEN, B. A., 1877; M. A., 1880. Carleton College.

Professor and Head of the Department of Physics, and Secretary of the Faculty of the College of Liberal Arts, 1883.
707 N. Dubuque St. (Hall of Physics)

LAENAS GIFFORD WELD, B. S., 1883; M. A., 1885, Iowa.

Professor of Mathematics and Head of the Department, Dean of the Graduate College, and Dean of the Summer Session, 1886.
612 N. Dubuque St. (113 Liberal Arts)

CHARLES CLEVELAND NUTTING, B. A., 1880; M. A., 1882, Blackburn University.

Professor and Head of the Department of Zoology, and Curator of the Museum of Natural History, 1886.
922 E. Washington St. (Science Hall, third floor)

ISAAC ALTHAUS LOOS, B. A., 1876; M. A., 1879, Otterbein; B. D., 1881, Yale; D. C. L., 1898, Penn Coll.

Professor of Political Economy and Sociology, and Director of the School of Political and Social Science, 1889.
11 E. Bloomington St. (205 Liberal Arts)

WALTER LAWRENCE BIERRING, M. D., 1892, Iowa.

Professor of Bacteriology and Pathology, 1893.
Cor. Governor St. and Iowa Ave. (1 Liberal Arts)

WILLIAM CRAIG WILCOX, B. A., 1888; M. A., 1891, University of Rochester.

Professor of American History, and Head of the Department of History, 1894. 629 N. Dubuque St. (222 Liberal Arts)

FREDERICK C. L. VAN STEENDEREN, M. A., 1893, Penn Coll.

Professor and Head of the Department of French Language and Literature, 1893. 309 Church St. (120 Liberal Arts)

ALFRED VARLEY SIMS, C. E., 1888, Pennsylvania.

Professor and Head of the Department of Civil Engineering, 1895.
Bloom Terrace. (Engineering Hall)

GILBERT LOGAN HOUSER, B. S., 1891; M. S., 1892, Iowa; PH. D., 1901, Johns Hopkins.

Professor and Head of the Department of Animal Morphology and Physiology, 1892. 422 Iowa Ave. (Science Hall, first floor)

BENJAMIN FRANKLIN SHAMBAUGH, B. PH., 1892; M. A., 1893, Iowa; PH. D., 1895, Pennsylvania.

Professor and Head of the Department of Political Science, 1895.
219 N. Clinton St. (202 Liberal Arts)

WILLIAM ROBERT WHITEIS, B. S., 1892; M. D., 1895; M. S., 1895, Iowa.

Professor of Histology and Embryology in the College of Medicine 1898. 220 S. Johnson St. (Histological Laboratory—16 Liberal Arts)

CLARK FISHER ANSLEY, B. A., 1890, Nebraska.

Professor and Head of the Department of English, 1899.
1041 Woodlawn. (227 Liberal Arts)

LEONA ANGELINE CALL, B. A., 1880; M. A., 1883, Iowa.
Professor of Greek Language and Literature, 1885.
21 N. Dubuque St. (106 Liberal Arts)

HENRY EVARTS GORDON, B. A., 1879; M. A. 1901, Amherst.
Professor of Public Speaking, 1900.
303 N. Capitol St. (312 Liberal Arts)

ARTHUR FAIRBANKS, B. A., 1886, Dartmouth; PH. D., 1890, Freiburg, i. B.
Professor of Greek Literature and Archæology, and Head of the Department of Greek; Secretary of the Graduate Faculty; University Editor, 1900. 7 E. Bloomington st. (310 Liberal Arts)

ALDEN ARTHUR KNIPE, M. D., 1896, Pennsylvania.
Director of Physical Culture, 1900. (Armory)

FREDERICK ELMER BOLTON, B. S., 1893; M. S., 1896, Wisconsin; PH. D., 1898, Clark.
Professor and Head of the Department of Education; Director of the Summer Session, 1900.
1019 College St. (217 Liberal Arts)

COLONEL GEORGE RITTER BURNETT, Graduate U. S. Mil. Acad., West Point, 1880; of U. S. School of Application, Ft. Leavenworth, 1885; First Lieut. U. S. A.
Professor of Military Science and Tactics, and Commandant of the Cadet Battalion, 1901. 510 College St. (Armory)

BOHUMIL SHIMEK, C. E., 1883; M. S., 1902, Iowa.
Professor of Physiological Botany, Professor of Botany in the College of Pharmacy, and Curator of the Herbarium, 1895.
529 Brown St. (Science Hall, second floor)

FRANKLIN HAZEN POTTER, B. A., 1892; M. A., 1895, Colgate.
Professor of Latin, 1895. 527 N. Linn St. (111 Liberal Arts)

CARL EMIL SEASHORE, B. A., 1891, Gustavus Adolphus; PH. D., 1895, Yale.
Professor of Psychology, 1897. 204 Fairchild St. (211 Liberal Arts)

RUSSELL D. GEORGE, M. A., 1898, McMaster University, Toronto.
Professor of Petrology and Economic Geology, 1900.
110 N. Clinton St. (Hall of Science)

HARRY GRANT PLUM, B. PH., 1894; M. A., 1896, Iowa.
Professor of European History, 1900.
222 Fairchild St. (315 Liberal Arts)

JOHN FRANKLIN BROWN, B. PH., 1889; M. A., 1895, Earlham; PH. D., 1896, Cornell.
Professor in Education, and Inspector of High Schools, 1901.
110 N. Clinton St. (216 Liberal Arts)

GEORGE T. FLOM, B. L., 1893, Wisconsin; M. A., 1894, Vanderbilt; PH. D., 1899, Columbia.
Acting Professor in charge of Scandinavian Languages and Literatures. 1900. 124 Church St. (10 Liberal Arts)

CHARLES SCOTT MAGOWAN, C. E., 1884; M. A., 1887, Iowa.
Assistant Professor of Civil Engineering, 1886.
304 Summit St. (South Hall)

ARTHUR G. SMITH, B. PH., 1891; M. A., 1895, Iowa.
Assistant Professor of Mathematics, 1893.
West Side. (12 Liberal Arts)

HENRY FREDERICK WICKHAM, M. S., 1894, Iowa.
Assistant Professor of Zoology, and Assistant Curator of the Museum of Natural History, 1894. 911 Iowa Ave. (Science Hall, third floor)

ALICE YOUNG, B. L., 1896, Minnesota.
Assistant Professor of English, and Dean of Women, 1900.
111 N. Clinton St. (117 Liberal Arts)

FREDERICK BERNARD STURM, B. A., 1892, Michigan.
Assistant Professor of German, 1892.
402 Church St. (102 Liberal Arts)

*WILLIAM ROLLA PATTERSON, B. Di., 1888; B. S., 1889, Iowa State Normal; B. PH., 1895, Iowa; PH. D., 1898, Pennsylvania.
Assistant Professor of Statistics and Economics, 1898.
505 Washington St. (209 Liberal Arts)

JOHN T. MCCLINTOCK, B. A., 1894, Parsons College; M. D., 1898, Iowa.
Assistant Professor in charge of Physiology in the College of Medicine, 1891. 145 Iowa Avenue. (Physiological Laboratory)

CLARENCE WILLIS EASTMAN, B. S., 1894, Worcester Polytechnic; M. A., PH. D., 1898, Leipzig.
Assistant Professor of German, 1898.
225 E. Fairchild St. (102 Liberal Arts)

JOSEPH JASPER MCCONNELL, B. A., 1876; B. Di., 1878; M. A., 1880, Iowa.
Lecturer on Education, 1891. Cedar Rapids, Iowa

LUTHER ALBERTUS BREWER, B. A., 1883; M. A., 1886, Pennsylvania College.
Lecturer on Journalism, University Publisher, 1900.
Cedar Rapids, Iowa

THE REV. GEORGE LUTHER CADY, B. A., 1890, Olivet College.
Lecturer on Sociology, 1900. 725 N. Linn St.

BERTHA GILCHRIST RIDGWAY,
Librarian, 1898. Clinton St. (General Library, Liberal Arts)

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*Absent on leave.

IDA ESTELLE SAWYER, B. PH., 1896, Northwestern; B. L. S., 1900, Illinois.
Reference Assistant in Library, 1902.
21 N. Dubuque St. (303 Liberal Arts)

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*HERBERT CLIFFORD DORCAS, B. PH., 1895, Iowa.
Instructor in Education, and University Examiner, 1895.
427 Ronalds St. (218 Liberal Arts)

LOUISE ELIZABETH HUGHES, B. PH., 1878; M. A., 1881; B. A., 1899, Iowa.
Instructor in Latin, 1896. 122 N. Capitol St. (112 Liberal Arts)

CARL LEOPOLD VON ENDE, B. S., 1893; M. S. 1894, Iowa; PH. D., 1899, Goettingen.
Instructor in Chemistry, 1899. West Side. (Chem. Lab'y)

JOHN VAN ETTEN WESTFALL, B. S., 1895, Cornell; PH. D., 1898, Leipzig.
Instructor in Mathematics, 1899. 127½ S. Dubuque St. (12 Liberal Arts)

SIVERT N. HAGEN, B. A., 1896, Luther College; PH. D., 1900, Johns Hopkins.
Instructor in English, 1900. 209 Fairchild St. (207 Liberal Arts)

CHARLES F. LORENZ, B. S., 1897; M. S., 1898, Iowa.
Instructor in Physics, 1900. West Side. (Hall of Physics)

JOHN J. LAMBERT, B. Di., 1896; M. Di., 1897, Iowa State Normal; B. PH., 1899; M. S., 1901, Iowa.
Instructor in Animal Morphology and Physiology, 1898.
120 E. Market St. (Science Hall, first floor)

FRANCIS NEWTON BRINK, B. PH., 1899; M. S., 1901, Iowa.
Instructor in Chemistry, 1898. 510 Reno St. (Chemical Laboratory)

STEPHEN HAYES BUSH, B. A., 1901; M. A., 1902, Harvard.
Instructor in French, 1901. 221 Fairchild St. (120 Liberal Arts)

SAM BERKLEY SLOAN, B. A., 1899, Nebraska.
Instructor in English, 1899.
506 N. Linn St. (118 Liberal Arts)

HENRY WALDGRAVE STUART, B. PH., 1895, California; PH. D., 1900, Chicago.
Instructor in Philosophy, 1901. 221 Fairchild St. (209 Liberal Arts)

PAUL SKEELS PEIRCE, B. PH., 1897, Cornell; PH. D. 1900, Yale.
Instructor in History, 1902. 124 Church St. (223 Liberal Arts)

MARGARET A. SCHAFFNER, B. A., 1895, Emporia; M. A., 1899; PH. D., 1902, Wisconsin.
Instructor in Sociology and Economics, 1902.
114 N. Capitol St. (205 Liberal Arts)

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*Absent on leave.

J. PERCIVAL HUGGETT, M. DI., 1892, Iowa State Normal.
Instructor in Education, and Acting University Examiner, 1902.
923 Iowa Ave., (218 Liberal Arts)

FRANK EDWARD HORACK, B. PH., 1897; M. A., 1899, Iowa; PH. D., 1902, Pennsylvania.
Instructor in Political Science, 1902.
120 N. Dodge St. (220 Liberal Arts)

LOUIS DELAVAN NILES, M. D., 1886, Michigan; B. S., 1901, Albion College.
Instructor in Chemistry in the College of Medicine, 1902.
116 E. Jefferson St. (Chem. Lab.)

WILLIAM E. BECK, B. S. 1900; M. S., 1902, Iowa.
Assistant Instructor in Mathematics, 1900.
518 S. Clinton St. (115 Liberal Arts)

FREDERICK WILLIAM BAILEY, B. S. 1901, Iowa.
Assistant Instructor in Physiology in the College of Medicine, 1901.
214 Davenport St. (Physiological Laboratory)

MABEL CLARE WILLIAMS, B. PH., 1899, Iowa.
Assistant Instructor in Psychology, 1899.
108 N. Johnson St. (215 Liberal Arts)

JACOB E. CONNER, B. A., 1891, Iowa.
Assistant Instructor in Commerce and Finance, 1900.
222 Ronalds St. (208 Liberal Arts)

PERCIVAL HUNT, M. DI., 1897, Iowa State Normal; B. A., 1900, Iowa.
Assistant Instructor in English, 1900.
215 Ronalds St. (226 Liberal Arts)

FRANK ALBERT STROMSTEN, B. S., 1900; M. S., 1902, Iowa.
Assistant Instructor in Animal Morphology, 1900.
120 E. Market St. (Science Hall, first floor)

KATHERINE PAINE, B. PH., 1889, Iowa.
Assistant Instructor in Latin, 1900. 513 Summit St. (109 Liberal Arts)

ALICE ANKENEY, B. A. 1897, Wells College.
Assistant Instructor in Chemistry, 1901.
728 E. Washington St. (Chemical Laboratory)

JOHN GABBERT BOWMAN, B. A., 1899, Iowa.
Assistant Instructor in English, 1901.
215 Ronalds St. (226 Liberal Arts)

ALDEN ROBBINS HOOVER, B. S., 1902, Iowa.
Assistant Instructor in Histology and Embryology, 1901.
103 N. Capitol St. (10 Liberal Arts)

HENRY ALBERT, B. S., 1900; M. D., 1902; M. S., 1902, Iowa.
Assistant Instructor in Pathology and Bacteriology, 1901.
120 E. Market St. (2 Liberal Arts)

THOMAS WARNER MITCHELL, B. A., 1900, University of Washington.
Assistant Instructor in Economics and Statistics, 1902.
522 E. Bloomington St. (208 Liberal Arts)

HARRIETTE GRACE HOLT, B. PH., 1896, Iowa.
Assistant Instructor in French, 1902. 225 Iowa Ave. (6 Liberal Arts)

BYRON JAMES LAMBERT, B. DI., 1896; M. DI., 1897, Iowa State Normal; B. PH., 1900; B. S. in C. E., 1901, Iowa.
Assistant Instructor in Civil Engineering, 1902.
24 N. Clinton St. (South Hall)

LEE PAUL SIEG, B. S., 1900; M. S., 1901, Iowa.
Fellow in Physics, 1900. 314 E. Church St. (Hall of Physics)

HELEN MAY EDDY, B. A., 1900, Iowa.
Fellow in Latin, 1901. 4 Jefferson St. (112 Liberal Arts)

HARRY EDWARD BURTON, B. A., 1901, Iowa.
Fellow in Mathematics, 1901. 221 Church St. (115 Liberal Arts)

JAMES HENRY LEES, B. DI., 1893; M. DI., 1897, Iowa State Normal; B. A., 1901, Coe College.
Fellow in Geology, 1901. 923 Iowa Ave. (Science Hall)

MARY EMMA POLK, B. A., 1900, Iowa.
Fellow in English, 1902. 96 E. Market St. (226 Liberal Arts)

MARY GROVE CHAWNER, B. A., 1896, M. A., 1902, Penn College.
Fellow in English, 1902. 720 E. Jefferson St. (226 Liberal Arts)

FLETCHER BRIGGS, B. PH., 1901; M. A., 1902, Iowa.
Fellow in German, 1902. 213 E. Market St. (103 Liberal Arts)

THEODORE J. SAAM, B. S., 1898, Lenox.
Fellow in History, 1902. 324 Davenport St. (223 Liberal Arts)

ARTHUR HUBERT VANDIVERT, PH. C., 1879, Michigan.
Fellow in Medical Chemistry, 1902. 421 S. Dubuque St. (Chem. Lab.)

CHARLES IRWIN LAMBERT, B. DI., 1896; M. DI., 1897, Iowa State Normal; B. S., 1901, Iowa.
Fellow in Pathology and Bacteriology, 1900.
120 E. Market St. (1a Liberal Arts)

WALTER MARTINUS BOEHM, B. S., 1902, Iowa.
Scholar in Physics, 1900. 406 S. Clinton St. (Hall of Physics)

CHARLES SCHUTZ KRAUSE, B. S., 1902, Iowa.
Scholar in Pathology and Bacteriology, 1901.
9½ S. Dubuque St. (1a Liberal Arts)

FRED JAY SEAVER, B. S., 1902, Morningside College.
Scholar in Botany, 1902. 402 Iowa Ave., (Science Hall, second floor)

SARAH RUTH QUIGLEY, B. PH., 1902, Iowa.
Scholar in English, 1902. 419 N. Dubuque St. (226 Liberal Arts)

JOSEPH HARDING UNDERWOOD, B. A., 1902, Western College.
Scholar in Economics and Statistics, 1902.
307 Iowa Ave. (205 Liberal Arts)

EDWARD ROBERT COLLINS, B. S., 1895, Iowa State Normal; B. S., 1902, Iowa.
Scholar in Education, 1902. 313 S. Dubuque St. (220 Liberal Arts)

FANNY ANNETTE SUNIER, B. PH., 1902, Iowa.
Scholar in French, 1902. West Side. (6 Liberal Arts)

CHARLOTTE MARIE LORENZ, B. A., 1902, Iowa.
Scholar in German, 1902. West Side. (8 Liberal Arts)

MABEL CLARE SMITH, B. A., 1902, Iowa.
Scholar in Greek, 1902. 21 N. Dubuque St. (310 Liberal Arts)

LINCOLN FREDERICK SCHAUB, B. A., 1901, Charles City College.
Scholar in Philosophy, 1902. 208 Fairchild St. (214 Liberal Arts)

THOMAS FARRELL, B. A., 1902, Iowa.
Scholar in Public Speaking, 1902. 406 N. Gilbert St. (312 Liberal Arts)

JOHN MILTON MEHAFFEY, B. PH., 1902, Iowa.
Scholar in Sociology, 1902. 318 S. Clinton St. (205 Liberal Arts)

WILLIAM B. BELL, M. DI., 1899, Iowa State Normal; B. A., 1902, Iowa.
Scholar in Zoology, 1902.
318 N. Dubuque St. (Science Hall, third floor)

THE ADMINISTRATIVE COUNCIL OF THE GRADUATE COLLEGE

DEAN WELD, Chairman; Professor FAIRBANKS, Secretary; Professors ANDREWS, ANSLEY, BIERRING, NUTTING, WILSON, WILCOX.

THE ADMINISTRATION OF THE GRADUATE COLLEGE

The excellent opportunities offered by the State University of Iowa for the pursuit of advanced studies in various branches of knowledge have from the first attracted considerable numbers of college graduates to the institution. As the opportunities for advanced study multiplied, the number of such students became larger and several of the departments found it expedient to offer courses especially designed for graduates.

The first noteworthy step toward the development of a graduate college was taken in 1888, when the practice of conferring the degree of Master of Arts upon all bachelors of three years' standing who had been engaged in professional or literary work was definitely discontinued. In 1893 the graduate work of the University had become of such importance as to warrant the appointment of a standing committee for its supervision and for the definition of the terms upon which the degrees of Master of Arts and Master of Science might be conferred. The policy inaugurated by this committee differed but little from that in operation at the present time and its effect was immediate and salutary. The number of advanced courses open to graduates steadily increased and the facilities for successfully prosecuting special work were greatly improved.

In 1898 applications for admission to candidacy for the degree of Doctor of Philosophy were for the first time accepted, and then only from graduate students in residence at the University. The question of accepting non-resident candidates for the degrees of Master of Arts and Master of Science was disposed of in 1899 when, upon the recommendation of the standing committee on graduate students, it was voted by the Faculty that no candidate *in absentia* would be accepted after October 1, 1900, and that all such existing candidacies shall lapse in June, 1903.

The Graduate College was instituted by action of the Board of Regents on June 7, 1900. Besides recognizing the College and appointing a dean the Board established certain fellowships and scholarships, the number of which has been increased from year to year. The first annual announcement was issued in August, 1900.

A council of seven members, appointed by the President of the University, co-operates with the dean in the administration of the College.

ADMISSION

Any person known to be a graduate in good standing of an accredited college of liberal arts may be admitted to the Graduate College. Admission to specific courses of study to be taken in candidacy for an advanced degree, however, can only be granted upon the recommendation of the respective professors in charge of such courses.

There are no tuition fees in the Graduate College. A diploma fee of $10 is charged for each advanced degree conferred.

FELLOWSHIPS AND SCHOLARSHIPS

No definite announcement can as yet be made regarding the fellowships and scholarships available for the academic year 1903–1904. There are at present twenty-four of these appointments in the University. It is expected that the number for the next academic year will be much larger. In the year 1902–1903 two scholarships and two fellowships were assigned to the School of Political and Social Science.

The value of a scholarship has been fixed at $125 per year and that of a fellowship at $225, with exemption from all University fees in each case. In general, a fellowship is granted only to the graduate student of at least one year's standing, while a scholarship may be conferred upon graduation from any accredited college of liberal arts.

SCHOLARSHIPS AND FELLOWSHIPS AT LARGE

Applications for these appointments must be made to the President upon blanks prepared for the purpose and obtain-

able from any officer of the University. All applications to be acted upon at the spring meeting of the Board of Regents must be submitted before March 1st; those to be acted upon at the June meeting, before May 15th.

The following regulations, adopted by the Faculty of the Graduate College and authorized by the Board of Regents, are in force:

1. Each fellow or scholar will be required to pursue his studies under the direction of the professors in charge of his major and minor courses and to render to the University such services as may be required of him by the President in consultation with the professor in charge of his major course; it being understood that the maximum amount of service to be expected of a scholar shall be the equivalent of teaching three hours or of superintending laboratory work for six hours per week, while that required of a fellow may not exceed twice the above amount.

2. Each student holding a fellowship or a scholarship, shall be in actual attendance at the University throughout the academic year for which he is appointed, unless excused by the President and head of his department.

3. The applicant for a fellowship or a scholarship will be expected to demonstrate his capacity for original research and must give evidence of marked attainments in one or more lines of study. Testimonials from responsible persons as to the general worthiness of the candidate must accompany the application, though no appointment to a fellowship will be made upon recommendations not supported by specimens of the applicant's original work.

4. Each application for a fellowship or a scholarship shall, if approved by the head of the department in which the appointment is sought, be referred by him to the council of the Graduate College. The council shall consider all applications thus approved and referred and submit a report to the Graduate Faculty recommending a list of appointments assigned to the several departments as equitably as may be, the relative qualifications of the several applicants having been accorded due weight. This report, as amended by the faculty, shall, upon the approval of the President, be transmitted to the Board of Regents or its executive committee for final action at the spring meeting.

A second assignment of fellowships and scholarships may be made in the same manner at the June meeting of the Board.

5. All graduate appointments shall be for one year. Both fellows and scholars may be recommended for re-appointment at the discretion of the council, but for a second year only.

6. Any graduate appointment may be withdrawn at any time upon the concurrent recommendation of the President of the University and the head of the department in which the appointment is held.

SCHOLARSHIPS IN IOWA COLLEGES

The authorities of the University have under consideration plans for establishing one or more graduate scholarships in each of the standard colleges of Iowa, the holders of these appointments to be nominated by the faculties of their respective colleges subject to the general conditions governing the appointment of scholars set forth above.

These scholarships will be first awarded for the academic year 1904–1905. In the next number of the University Calendar a statement of the proposed plan will be published in full.

ADVANCED DEGREES

The Graduate College confers among others the following degrees: Master of Arts, Master of Science, Doctor of Philosophy.

MASTER OF ARTS AND MASTER OF SCIENCE

The degree of Master of Arts, or of Master of Science, will be conferred upon resident graduates under the following conditions:

1. The candidate must be a graduate of this University, or of an accredited university or college.

2. He must have pursued, during one or more years, a course of graduate study at this University, covering one major and one minor subject; in a two years' course, one major and two minors being allowed. His studies during this time are to be under the immediate supervision and control of the professors immediately concerned and to be subject to the approval of the faculty.

3. In all cases the minor or minors must be closely allied to the major subject; provided, however, that any candidate in residence for two or more years may select a modern language as a second minor in his course.

4. The candidate must submit a thesis of at least 5,000 words showing marked attainment in some branch of learning. The subject of this thesis must be announced to the faculty for approval not later than the second Friday in December, and the thesis itself must be presented to the examining committee at a date to be set by the professor in charge of the thesis work, but not later, in any case, than May 20 of the year in which the degree is expected.

5. He must, at the close of his course, pass a satisfactory examination, both oral and written, conducted by a committee which shall consist of three professors, selected by the faculty for this purpose.

6. A graduate student in any professional college of the University, pursuing work in the Graduate College, may become a candidate for an advanced degree: but two years of such candidacy shall be necessary to fulfill the requirement of one year imposed by rule 2 above, the time to be reckoned from the date of the application for the advanced degree.

7. The degree of Master of Arts will be granted only upon the completion of a course mainly literary in character; the degree of Master of Science, after one mainly scientific.

Non-resident graduates may receive the degree of Master of Arts, or of Master of Science, on complying with the following conditions in addition to or modifying those enumerated for residents. Since October 1, 1900, no candidate *in absentia* has been accepted, and all existing candidacies *in absentia* will lapse in June, 1903.

1. The candidate will be required to outline a course of study, comprising a major and one allied minor subject, which must be approved by a committee of two or more professors appointed to pass upon it.

2. He shall at the close of each academic year present a report, which should comprise a complete synopsis of the year's work, naming topics studied and authors read. These annual reports are expected to be specific and comprehensive.

3. The graduate studies must extend over three years,

although in exceptional cases, where the candidate devotes a large part of his time to study, a shorter course, but in no case less than two years may be accepted.

4. Candidates for the master's degree who have graduated elsewhere are required to spend at least one year in residence at this University.

DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy will be granted under the following conditions:

I. Prerequisites.

1. The candidate must have received the bachelor's degree either from this institution or from some other of equal rank.

2. He must present evidence of having completed a satisfactory amount of undergraduate work in the subjects proposed for investigation for this degree.

3. He must possess a knowledge of French and German at least sufficient for purposes of research.

II. Conditions of Candidacy.

1 At least three years of graduate study will ordinarily be required. Of these, two must be in residence and the last year prior to receiving this degree must be spent at this University.

2. In making formal application for this degree the candidate shall select one major study and one or two minors. The minor study or studies shall be closely allied to the major and shall be such as, with it, to constitute a single field of research.

3. The application of the candidate setting forth the line of research proposed shall be approved and endorsed by the professor or professors under whose direction it is proposed to prosecute the work.

III. Dissertation.

1. On completion of his work the candidate shall submit to the faculty a formal dissertation which shall not only exhibit evidence of original research, but shall in itself be a contribution to the sum of human knowledge.

2. The dissertation must be in acceptable literary form; although its acceptance will depend chiefly upon the subject matter.

3. The subject of the proposed dissertation must be submitted to the faculty not later than the second Friday in October of the year preceding that in which the degree is expected; and a copy of the dissertation, printed or typewritten, must be in the hands of the Secretary of the Faculty not later than the 20th day of May of the year in which the degree is expected. In case the dissertation offered is accepted by the Faculty and the candidate passes satisfactorily the examination provided for in the next section following, he shall, prior to receiving his degree, deposit with the librarian of the University twenty-five printed copies of the dissertation so accepted.

IV. Examinations.

1. At such time as may be agreed upon by the candidate and the professors in charge of his work, he shall pass an examination, both oral and written; the examination to be conducted by the professors immediately concerned,—the written privately, the oral in the presence of the faculty. For purposes of this examination five members of the faculty of the Graduate College shall constitute a quorum.

CIVIL ENGINEER AND ELECTRICAL ENGINEER

Graduates from the engineering courses receive the degree of Bachelor of Science in Civil or Electrical Engineering. The degree of Civil Engineer or Electrical Engineer will be conferred on graduates who have practiced their respective professions for at least three years, and who have submitted an approved thesis and passed a satisfactory examination.

COURSES OF STUDY FOR GRADUATES

It is the aim of the University to furnish facilities for advanced study commensurate with the demand. No set courses of study leading to any of the advanced degrees are provided; each candidate for one of these degrees pursues an independent line of study, in which regular university courses are usually combined with special research work, original in character, laid out with the advice of the professors and carried out under their direction.

The elastic nature of the elective system here in operation renders the more advanced courses in many branches as valuable to the graduate as to the advanced undergraduate. The seminaries, for example, hold out encouragement and opportunities for a great deal of original study and research, as do also a number of the advanced courses in the different departments. In the following pages will be found grouped together those courses which are of special interest to graduates. In every case courses intended primarily for graduates (C) are distinguished from those open also to undergraduates (B). To the former undergraduates are admitted only under exceptional circumstances and subject to the discretion of the professor in charge of the work.

The courses intended only for undergraduates (A) are not here given, but may be found in the current Announcement of the College of Liberal Arts. The numbers given to the several graduate courses are continuous with those designating the undergraduate courses.

Additional graduate courses will be arranged in connection with the summer session for the benefit of those unable to do work in residence during the regular academic year. Details as to these courses are given in the Announcement of the Summer Session of 1902, or may be obtained by correspondence with the professors concerned.

SANSKRIT

PROFESSOR POTTER

The courses in Sanskrit are intended to afford a general introduction to Indo-European Comparative Grammar and to lay the foundation for future reading in the literature and philosophy of the ancient Hindus.

For additional courses in Indo-European Grammar see Greek, Course 35 (*36*); Latin, Course 35; German, Courses 11–16, 19; Scandinavian, Courses 9 (*10*), 13 (*14*), 17 (*18*), 19 (*20*); English, Courses 87 (*88*), 79 (*80*), 81, 82, 73.

*1. Sanskrit Grammar and the reading of the easy selections from the Nala. Lectures on Sanskrit Phonology.

First Semester; Tu., Th.

2. Introduction to the Veda. Lectures on Hindu history and literature.

Second semester; Tu., Th.

A supplementary reading course for the purpose of drill in vocabulary and grammatical forms is offered in the Summer Session.

GREEK LANGUAGE AND LITERATURE

PROFESSOR FAIRBANKS; PROFESSOR CALL

Ordinarily candidates for advanced degrees are expected to have completed four years work in Greek before undertaking the work of the graduate courses. The aim of these courses is to enlarge the student's view of the field in which he is working, to train him in correct methods of study and investigation, and to encourage him to pursue lines of original research. In the preparation of the thesis offered for an advanced degree he has the benefit of the constant direction and advice of his instructor.

In the new Hall of Liberal Arts the departments of Greek and Latin have received ample accommodation. In addition to the regular recitation rooms, a well-lighted room is set

* Courses with odd numbers are given in the first semester, those with even numbers in the second semester. Where a course runs through the year it receives a double number, e. g. 1 (2); the whole course is designated in the calendar by the first number, but on the registrar's books each half of the course is designated by its own number. Courses not to be given in 1903–1904 are put in brackets.

apart as a working room for advanced students in the classics.

Not only the texts of classic authors, but also the more important annotated editions have been obtained for the library, the sets of periodicals containing the results of philological investigations are being placed on the shelves, and in some lines of archæology the standard publications have already been secured. The University has also begun a collection of photographs and lantern slides which are used to illustrate the conrses in archæology, and to some extent the courses in Greek literature. The collection owned by the University is supplemented by several hundred slides and many photographs belonging to the instructors in this department.

Graduates who offer Greek as their major are not required to take Latin as a minor, but they are strongly urged to do so. A working knowledge of Latin, as well as of French and German is of course required of candidates for the doctors' degree.

The courses in Greek Language and Literature are described aboved, pages 103-104.

LATIN LANGUAGE AND LITERATURE

PROFESSOR CURRIER; PROFESSOR POTTER, MISS HUGHES, MISS EDDY, MISS PAINE

The minimum prerequisite for work leading to an advanced degree is the full preparatory work for the classical course and courses 7–13, or a full equivalent.

The courses in Latin Language and Literature are described above, pages 106-108.

CLASSICAL ARCHÆOLOGY

ART; HISTORY; ANTIQUITIES

The courses in Classical Archæology are described above, pages 109-110.

FRENCH LANGUAGE AND LITERATURE

PROFESSOR VAN STEENDEREN; MR. BUSH, MISS HOLT, MISS SUNIER

Aside from the general requirements for admission to the Graduate College, the candidate for an advanced degree, representing this department either in major or in minor subjects, must have completed courses 1, 2, and 3 as announced in the University Calendar for 1901–1902; that is, he is expected to know the essentials of French grammar, to be able to read modern French prose, and to translate English into French with fair ability.

Besides the completion of courses offered below, the candidate must, if Romance is chosen as a major study, follow a course of original study, the subject of which is chosen under the advice of the professor in charge, and the results of which must be embodied in a thesis.

The courses in French Language and Literature are described above, pages 112-114.

GERMAN LANGUAGE AND LITERATURE

PROFESSOR WILSON; ASSISTANT PROFESSORS STURM AND EASTMAN, ACTING PROFESSOR FLOM, MR. BRIGGS, AND MISS LORENZ

All courses in German are offered every year except as otherwise indicated. Courses with odd numbers are given in the first semester, those with even numbers in the second semester. Students are invited to consult with the instructors in arranging their work. Graduate students of German will find it to their special advantage to combine with their work some of the courses offered in the department of the Scandinavian languages and literatures.

The German library is particularly rich in the history of German literature, the history of the German language, Goethe literature, Middle High German, Old High German, and possesses complete bound sets of the most important philological periodicals. It is conveniently arranged in the German Seminary room, No. 103 in the Hall of Liberal Arts, adjoining the other rooms of the department.

The courses in German Language and Literature are described above, pages 117-120.

SCANDINAVIAN PHILOLOGY

ACTING PROFESSOR FLOM

The graduate instruction offered in the department of Scandivanian Languages is intended in part to suit the needs of advanced students in other modern languages, especially German and English, and in part to give to those who would devote themselves most particularly to Scandinavian literature and linguistics a thorough knowledge of Scandinavian both in the older and in the modern period. A knowledge of Old Norse is essential to a thorough understanding of the other Germanic languages and German philology in general. Old Danish and Old Swedish, though inferior from the standpoint of literary interest, are of the greatest importance philologically. Two courses will be offered in Old Norse (and Old Icelandic): the one elementary and philological, the other advanced and more literary in character. In the former the interests of the student of German or English philology will be kept constantly in view. This course is also intended to lay a foundation for further study in Scandinavian philology. The course in Old Danish and Old Swedish presupposes a knowledge of Old Norse and the principles of Germanic philology. Courses are also offered in the history of the Scandinavian languages and in Scandinavian influence on English. The latter should be of special interest to students of English philology. It is the purpose of this course to go, rather in detail, into the linguistic relations of English and Scandinavian. After introductory lectures on English dialects, in which special attention will be paid to Northern English, certain works will be assigned for investigation. The form and distribution of words will be studied, and their dialect provenience determined as nearly as may be.

A knowledge of Modern Norse, though not necessary, will be helpful in course 9 (*10*). Course 15 (*16*) presupposes course 9 (*10*). The student who would take up course 18 should have an elementary knowledge of Modern Danish. For course 18 some knowledge of Modern Swedish is desirable. Course 19 presupposes a good knowledge of Old Norse and Old English phonology.

Course 9 (*10*) in Old Norse is given every year. It will

be the aim hereafter to alternate courses 11 and 15, the former to be given in 1903–1904. Course 17 or 19 will be given in 1903–1904.

The courses of Scandinavian Philology are described above, pages 122–124.

ENGLISH

PROFESSOR ANSLEY; ASSISTANT PROFESSOR YOUNG, DR. HAGEN, MR. BREWER, MR. SLOAN, MR. HUNT, MR. BOWMAN.

Material for advanced study is found in the development and the present status of rhetorical theory; in the history of schools, movements, tendencies, and writers in our literature, with their relations to each other and to other literatures; in the theory of literary art, as an approach to the study of æsthetics; and in the structure of the language itself in the several stages of its evolution. An advanced degree in English should imply some knowledge of all these subjects, with specialization in one of them.

Students are assisted individually to determine the particular lines of investigation likely to prove most profitable. Courses of study other than those offered are given as occasion demands.

The courses in English are described above, pages 126–129.

PUBLIC SPEAKING

PROFESSOR GORDON; MISS EVERTS.

Work especially designed for graduates can be had only in individual work. Special research may be done in the history of oratory or in the study of the technical phases of the work of Public Speaking. There is a call for University graduates as teachers of public speaking which it is impossible to fill. Training designed to prepare students to fill such calls is now offered in connection with the courses designated primarily for undergaduates but open to graduates.

The courses in Public Speaking are designated above, pages 130–131.

THE SCHOOL OF POLITICAL AND SOCIAL SCIENCE

The departments of history, sociology, political economy, and political science are formally associated as the School of Political and Social Science. For detailed information as to the correlation of courses of study in these departments the student should consult the special announcement issued by the school.

HISTORY

PROFESSOR WILCOX; PROFESSOR PLUM, DR. PEIRCE

Students who wish to do graduate work in History will be expected to have done more than the average amount of undergraduate work in the subject. Graduate work is not intended to fill up gaps left in the student's undergraduate course. All who intend to specialize in History should emphasize this subject before taking the bachelor's degree. Before any one can be enrolled as a graduate student in this department the requisite amount of preliminary work must be completed, either before or after receiving the first degree. Those contemplating graduate work in History are urged to elect also courses in Sociology, Economics and Politics.

POLITICAL SCIENCE

PROFESSOR SHAMBAUGH; DR. HORACK

Candidates for the degree of Master of Arts or Doctor of Philosophy in any of the lines of study comprehended by the department of Political Science are offered the following regular courses of instruction. Additional courses in the general field of Politics will be outlined by the head of the department to meet the special demands of individual candidates.

POLITICAL ECONOMY AND SOCIOLOGY

PROFESSOR LOOS; ASSISTANT PROFESSOR PATTERSON, MR. CADY, DR. SCHAFFNER, MR. CONNER, AND MR. MITCHELL

Courses 15 to 26 inclusive are open to any students who have taken History 1 and 2 or their equivalent in the College

of Liberal Arts. For the remaining courses under B, an elementary course in economics, (political economy in the College of Liberal Arts) is recommended as an introduction.

PHILOSOPHY

PROFESSOR PATRICK; PROFESSOR SEASHORE, DR. STUART, MISS WILLIAMS

This department offers opportunity for advanced study in the following subjects: Psychology, History of Philosophy, Logic and Metaphysics, Ethics, Æsthetics, and the History and Philosophy of Religion. Candidates for the degree of Master of Arts or Master of Science having the required preparation for advanced work may elect any one of these subjects for either a major or a minor course, subject to the rules for graduate students. Candidates for the degree of Doctor of Philosophy, while selecting one subject for special research will be expected to gain a comprehensive knowledge of all the subjects in this group. As examples of subjects for special research, or for *theses*, may be mentioned problems in experimental or physiological psychology, the methods and results of child study, epistemology, special periods and subjects in the history of philosophy, etc.

Candidates for advanced degrees in this department should have taken as undergraduate work in this institution, or in another of like rank, a general elementary course in psychology, a course in logic, and a course in ethics. An introductory course in the history of philosophy is also very desirable for preparation. Graduate students not candidates for a degree may take any course for which they are prepared, upon the approval of the instructor.

The new rooms for the Psychological Laboratory and the department of Philosophy on the second floor of the Hall of Liberal Arts are now occupied. They include two lecture rooms, a large library and seminary room, five commodious laboratory rooms, a work shop, a dark room, and two private offices for instructors. A description of the laboratory and apparatus may be found in this announcement under the head of Material Equipment.

The University of Iowa Studies in Psychology is a biennial bulletin published by the University and devoted to original contributions to psychological science. The articles are contributed by the graduate students and instructors of the department.

The Philosophical Library is supplied with all the standard works in philosophy, psychology, ethics, and logic, and with the bound volumes and current numbers of the leading philosophical and psychological journals of America, England, Germany, and France.

The courses in Philosophy are described above, pages 147-149.

THE SCIENCE AND ART OF EDUCATION

PROFESSOR BOLTON; PROFESSOR BROWN, MR. DORCAS, MR. HUGGETT, (1902–1903), SUPT. MCCONNELL.

The department of Education at present includes the following branches of University work:

1. Regular courses of instruction in the science and art of education.
2. The inspection of affiliated high schools.
3. The work of the University Examiner.
4. A Bureau of Information concerning teachers' positions.

Course 1 (*2*) is the most desirable as a first course in education. Certain other courses may well be taken at the same time. After course 1 (*2*) the order is not important. Courses 1 (*2*) and 5 (*6*), or 1 (*2*) and 7 (*8*) make a good five hour combination. Courses 1 (*2*), 9 (*10*), 12, and 13 (*14*) are especially desirable for normal school graduates and are in no sense a duplication of work done in the normal schools. Advanced courses are also open to those qualified. Some seminary work is especially valuable for such students.

Some work in psychology is a very desirable prerequisite for the courses in education. Students expecting to do considerable work in education can profitably take psychology in the Sophomore year and then distribute the pedagogical work through the Junior and Senior years.

Attention is called to the courses especially adapted for teachers, offered by other departments. These courses are

of two kinds, (*a*) those dealing in a specific way with the methodology and technique of high school instruction in those subjects, and (*b*)those in which the subject matter of ininstruction is of fundamental importance (and to a certain extent adaptable)in teaching those subjects in a modern manner in the high school. As much high school instruction needs vitalizing by being made more adaptable to the demands of the present, the value of such courses becomes apparent. Credit will be given in the Department of Education toward the University Teachers' Certificates, for a limited number of teachers' courses offered in other departments. Such credit will be given only for courses dealing with the methodology of the subject involved. Not more than two hours for a semester will be thus credited, and the work must be taken subsequent to some course in the Department of Education.

Teachers' courses of one kind or the other are offered by the Department of English, Latin, Greek, German, Political Science, History, Morphology, Botany, and Zoology. See the announcements for those departments and also consult the professors concerned.

The courses in the Science and Art of Education are described above, pages 150-154.

ANIMAL MORPHOLOGY AND PHYSIOLOGY

PROFESSOR HOUSER; MR. LAMBERT, MR. STROMSTEN

The graduate courses offered by this department presuppose familiarity with both the general methods and the fundamental principles of animal biology. As a rule, the requisite preparation will involve one year of laboratory work. A knowledge of elementary chemistry, and the ability to read German and French are also prerequisites.

Applicants for a minor course who satisfy these requirements will be admitted at once to any graduate work for which they are prepared.

Those electing animal morphology as the major subject will be expected to meet the conditions named above, and in addition to present evidence of having completed work equivalent to that of courses 7 and 8 outlined below. Where

such preparation is lacking, a corresponding extension of the graduate course will be necessary.

The courses in Animal Morphology and Physiology are described above, pages 155-158.

ZOOLOGY

PROFESSOR NUTTING; ASSISTANT PROFESSOR WICKHAM

Two years' work in natural science, one of which shall have been zoology or animal morphology, will be required as a preliminary to admission to gradnate courses with zoology as major.

One year's work in zoology, animal morphology, or botany will be required for admission to graduate courses with zoology as a minor.

The courses in Zoology are described above, pages 159-161.

PHYSIOLOGY

PROFESSOR DEAN; MR. BAILEY

Those wishing to take Physiology either as a major or minor in a course leading to an advanced degree, should have, as preliminary, at least one year's work each in physics, chemistry, and morphology, and should have completed undergraduate courses in physiology. Suitable courses will be outlined to meet the requirements of each student and special arrangements will be made in the Physiological Laboratory of the College of Medicine which will enable the student to carry on original research work.

Throughout the year; hours to be arranged.

HISTOLOGY AND EMBRYOLOGY

DR. WHITEIS.

As a prerequisite to advanced work in this department the student will be required to possess a good working knowledge of both the methods and the subject matter of general histology and embryology. Two courses are offered as follows:

1. THE EYE—The histology of its tissues, considered in relation to both their phylogenetic and their ontogenetic

development. The structure and development of the retina will be specially studied. Time to be arranged.

2. THE EAR—The investigation will proceed along the same lines as in the preceding course. Time to be arranged.

In either course the student will be assigned a private laboratory and offered such opportunities as the general laboratory and library afford. The department will supply the necessary tissues and reagents.

PATHOLOGY AND BACTERIOLOGY

DR. BIERRING

Candidates for advanced academic degrees may pursue research work in pathology and bacteriology in the laboratories of the College of Medicine. The number of students who can participate in the work, however, is limited by the accommodations of the special laboratory arranged for such work.

The following regulations with respect to major and minor subjects are to be observed. When the major subject chosen is bacteriology the minors should include either chemistry, or botany, or both; while, if the major be either experimental or comparative pathology, the minors should comprise such subjects as morphology, physiology, and psychology. Work in this department may also be elected as a minor.

Special courses may be arranged to suit the requirements of individual students.

Throughout the year; hours to be arranged.

BOTANY

PROFESSOR MACBRIDE; PROFESSOR SHIMEK

General courses in elementary botany, including the courses in plant histology and physiology are required as preliminary to graduate work in this department. Graduates selecting botany as a minor may receive credit for courses (B) which follow. Those making botany the major subject may take courses (C), or their equivalent in work to be specially arranged.

The courses in Botany are described above, pages 163-164.

GEOLOGY

PROFESSOR CALVIN; PROFESSOR GEORGE, MR. LEES

The geological field within reach of Iowa City and the geological collections and reference library belonging to the University afford ample opportunities for research work in geology. Courses can be arranged to meet the wishes of individual students.

The courses in Geology are described above, pages 166-168.

CHEMISTRY

PROFESSOR ANDREWS; DR. VON ENDE, MR. H. H. LOCHRIDGE, MISS A. ANKENEY, MR. ———

These courses lead to the degrees of Master of Science, and Doctor of Philosophy, respectively.

Graduates of accepted colleges who have done the amount of work in chemistry ordinarily covered in three semesters, comprising general elementary chemistry with laboratory work, introductory qualitative analysis, and introductory quantitative analysis may become candidates for the former of these degrees.

The requirements for admission to the courses leading to the doctor's degree demand three years' preparatory work in chemistry and comprise a good knowledge of the following branches: general chemistry, qualitative analysis, quantitative analysis, organic chemistry (including some experience in organic combustions and organic preparations) and outlines of chemical technology. A thorough course in physics is very desirable as a preparation for either of the advanced courses; and if, in any case, deficiencies exist in this respect they must be made up after entering, and a corresponding increase in the duration of the course is to be expected.

The courses in Chemistry are described above, pages 169-170.

PHYSIOLOGICAL CHEMISTRY

PROFESSOR ROCKWOOD

Suitable courses in physiological chemistry will be outlined to meet the requirements of graduate students desiring

to pursue some phase of this subject, either as a major or as a minor in a course leading to an advanced degree. The applicant for such a course must satisfy the head of the department as to his knowledge of general chemistry, and as to his fitness for undertaking original investigations. The resources of the chemical laboratory of the College of Medicine will be made available to the student, and the work will be under the direct supervision of the professor in charge.

Time to be arranged.

PHYSICS

PROFESSOR VEBLEN; MR. LORENZ, MR. SIEG, MR. BOEHM

Those wishing to take physics as a minor should previously have pursued a course equivalent to the undergraduate course in general physics covering one year, and should also have a good working knowledge of algebra, geometry, trigonometry, and, if possible, of plane analytical geometry. For those taking physics as a major, a knowledge of differential and integral calculus is necessary, and, in some cases, differential equations will be needed.

A description of the physical laboratory and workshop will be found under the head of Material Equipment.

The courses in Physics are described above, pages 171-172.

MATHEMATICS

PROFESSOR WELD; ASSISTANT PROFESSOR SMITH, DR. WESTFALL, MR. BECK, MR. BURTON, MR. ————

It is to be noted that for each of the following courses in mathematics a knowledge of the elements of the differential and integral calculus is a prerequisite. The graduate student in other lines of work may, however, upon recommendation of the professor in charge of his major subject, take as a minor the elementary course in analytical geometry and calculus offered to undergraduates. (See course 5, Announcement of College of Liberal Arts for 1903–1904). The courses here outlined may, many of them, be taken by undergraduates specializing in mathematics.

All graduate students in mathematics are expected to take an active part in the mathematical seminary, and every can-

didate for an advanced degree will be required to submit a thesis, prepared under the direction of his instructors, representing original investigation in either pure or applied mathematics.

All students are required to take course 1 (*a*, *b*), course 2 (*a*), and either course 2 (*b*) or 4 (*b*). Freshmen entering at the beginning of the second semester must take courses 01 (*a*, *b*), supplementing these by courses 7 (*a*, *b*) in the second year. Course 2 (*b*) must be taken by students in engineering and should be taken by all scientific students. In addition to the above, engineering students must take courses 5 (*a*, *b*) and 6, or their equivalent, courses 8 (*a*, *b*), and 9; besides courses 37, 38, 39, 40 in mechanics.

The courses in Mathematics are described above, pages 177-179.

THE SCHOOL OF POLITICAL
AND SOCIAL SCIENCE

FACULTY OF INSTRUCTION

GEORGE EDWIN MACLEAN, B. A., 1871; M. A., 1874, Williams; B. D., 1877, Yale; PH. D., 1883, Leipzig; LL. D., 1895, Williams.
President, 1899.† 603 College St. (2 Old Capitol)

ISAAC ALTHAUS LOOS, B. A., 1876; M. A., 1879, Otterbein; B. D., 1881, Yale; D. C. L., 1898, Penn Coll.
Professor of Political Economy and Sociology, and Director of the School of Political and Social Science, 1889.
21 E. Bloomington St. (205 Liberal Arts)

WILLIAM CRAIG WILCOX, B. A., 1888; M. A., 1891, University of Rochester.
Professor of American History, and Head of the Department of History, 1894. 629 N. Dubuque St. (222 Liberal Arts)

BENJAMIN FRANKLIN SHAMBAUGH, B. PH., 1892; M. A., 1893, Iowa; PH. D., 1895, Pennsylvania.
Professor and Head of the Department of Political Science, 1895.
219 N. Clinton St. (202 Liberal Arts)

HARRY GRANT PLUM, B. PH., 1894; M. A., 1896, Iowa.
Professor of European History, 1900.
222 Fairchild St. (315 Liberal Arts

*WILLIAM ROLLA PATTERSON, B. Di., 1888; B. S., 1889, Iowa State Normal; B. PH., 1895, Iowa; PH. D., 1898, Pennsylvania.
Assistant Professor of Statistics and Economics, 1898.
505 Washington St. (209 Liberal Arts)

THE REV. GEORGE LUTHER CADY, B. A., 1890, Olivet College.
Lecturer on Sociology, 1900. 725 N. Linn St

FRANK EDWARD HORACK, B. PH., 1897; M. A., 1899, Iowa; PH. D., 1902, Pennsylvania.
Instructor in Political Science, 1902.
120 N. Dodge St. (220 Liberal Arts

MARGARET A. SCHAFFNER, B. A., 1895, Emporia; M. A., 1899; PH. D., 1902, Wisconsin.
Instructor in Sociology and Economics, 1902.
114 N. Capitol St. (205 Liberal Arts)

†Date following title indicates year of appointment to service in the University. The names are arranged in groups according to seniority of appointment to present rank.

*Absent on leave.

PAUL SKEELS PEIRCE, B. PH., 1897, Cornell; PH. D. 1900, Yale.
Instructor in History, 1902. 124 Church St. (223 Liberal Arts)

JACOB E. CONNER, B. A., 1891, Iowa.
Assistant Instructor in Commerce and Finance, 1900.
222 Ronalds St. (208 Liberal Arts)

THOMAS WARNER MITCHELL, B. A., 1900, University of Washington.
Assistant Instructor in Economics and Statistics, 1902.
522 E. Bloomington St. (208 Liberal Arts)

THEODORE J. SAAM, B. S., 1898, Lenox.
Fellow in History, 1902. 324 Davenport St. (223 Liberal Arts)

JOSEPH HARDING UNDERWOOD, B. A., 1902, Western College.
Scholar in Economics, 1902.
307 Iowa Ave. (205 Liberal Arts)

JOHN MILTON MEHAFFEY, B. PH., 1902, Iowa.
Scholar in Sociology, 1902. 318 S. Clinton St. (205 Liberal Arts)

SCOPE AND PURPOSES OF THE SCHOOL

The Iowa School of Political and Social Science, established by the Board of Regents in June, 1900, embraces the following departments of instruction: History; Political Economy and Sociology, including Commerce; and Political Science. It provides courses in ancient and modern history, in the several branches of Economics including Commerce, Finance and Statistics, in theoretical and practical Sociology, and in Political Science including Public Law and Jurisprudence.

The aim of the School is to give a complete general view of all the political and social sciences and to foster the further development of all of the branches thereof. Its more immediate and practical object is to prepare the students of the University for the intelligent exercise of the rights and duties of citizenship in a free commonwealth, and to fit them for the various branches of the public service and for the wider avenues of business. It aims furthermore to supplement by courses in public law and comparative jurisprudence the instruction in private municipal law given by the Faculty of Law, and to give to those who intend to make journalism their profession adequate training in historical, economic, and legal subjects. Finally it aims to educate teachers of the several branches of political and social science.

ADMISSION TO UNDERGRADUATE STUDY

Undergraduate study in the School of Political and Social Science is conditioned on admission to the College of Liberal Arts and subject to the regulations defining the courses of study leading to the bachelor's degree under the operation of the elective system, defined below.

THE BACHELOR'S DEGREE

The requirements for the respective baccalaureate degrees

are stated below under the Elective System for undergraduates, and the requirements for B. A. and B. Ph. are specifically indicated in the statement of the general course in Political and Social Science on page 240. No student will be allowed, without permission, to change an elected course, nor to pursue more than sixteen nor less than fifteen hours at a time.

SPECIAL OR UNCLASSIFIED STUDENTS

Persons twenty-one years of age, not candidates for a degree, may be admitted as unclassified students without examination, except in English, and may pursue studies at the discretion of the faculty on the recommendation of the professors in charge of the subjects chosen. Also persons under twenty-one years of age not candidates for a degree, admitted to the College without conditions, whose reasons for irregular work are approved by the faculty, may be registered as unclassified. Unclassified students are subject to the same requirements as regular students as to amount of work to be carried, examinations, and scholarship.

THE ELECTIVE SYSTEM FOR UNDERGRADUATES

The scope of elective and required studies will be indicated by a brief statement of the requirements of the several undergraduate courses of study which lead to a baccalaureate degree.

The prescribed studies leading to the B. A. degree are for the freshman year: Greek, five hours a week, throughout the year; Latin, 3; English, 2; History, 2; and Mathematics, 4. And for the sophomore year: Greek, five hours; and English, 3. This leaves the student free to elect seven or eight hours a week throughout the sophomore year (fifteen or sixteen hours being regarded as full work), while during the junior and senior years all of his work is elective with only the condition that of the possible electives in the sophomore, junior, and senior years, at least forty semester hours shall be taken in language and literature, political and social sciences, or philosophy and education. The requirements in the philosophical course leading to B. Ph. degree are substantially the same; but German or French are to be

substituted for the prescribed Greek. In the general scientific course leading to the B. S. degree the prescribed studies are similar to those of the philosophical course; but physics is required in place of Latin and History, and electives are limited mainly to courses in the material sciences, except in the senior year.

The student, therefore, who desires to do special work in the political and social sciences, will naturally elect a course, leading to the degree of B. A. or B. Ph., but a student who is pursuing a special course in Commerce or Industry may desire to specialize so far in applied Science as to make it desirable for him to elect a course leading to the degree of B. S. If he wishes to specialize in the Iowa School of Political and Social Science he should in each semester of his sophomore year select at least two of the courses open to him in history, politics, and economics.

The courses specifically recommended for this purpose are: Political Science 1 and 2, and Political Economy 1 and 6. He may thereafter pursue his chosen subjects throughout two years; these years he may, if he choose, devote entirely to his specialty.

GENERAL AND SPECIAL COURSES IN POLITICAL AND SOCIAL SCIENCE

To guide students who propose to elect all or a considerable portion of their undergraduate work in the School of Political and Social Science a general course in political and social science is announced below in which the specific requirements for the degree of B. A. and the degree of B. Ph. respectively are printed in heavy face type to distinguish these requirements from the other parts of the course which are in the nature of advice and suggestion. Following this general course of study a series of special courses are announced in Commerce, Administration, Statistics, Modern History, and Practical Philanthropy.

These courses of study, both the general and special, will be found below. Students may, in consultation with heads of departments, group their electives with special reference to some definite line of inquiry or in preparation for some definite pursuit.

GENERAL COURSE IN POLITICAL AND SOCIAL SCIENCE

FRESHMAN YEAR

Greek 5 hours (if candidate for B. A.), or **German** 5, or **French** 5 (if candidate for B. Ph.); **Latin** 3; **English** 2; **History** 2: and **Mathematics** 4.

SOPHOMORE YEAR

Greek 5, (if candidate for B. A.), or **German** 3, or **French** 3, (if candidate for Ph. B.); **English** 3; Politics 3; Economics 3; History, Additional Language, Psychology or other science, 2 or 3.

JUNIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
English History	3	English History	3
Principles of American Government	3	Comp. State Legislation	3
Economics, or Economics and Sociology	4 or 5	Economics, or Economics and Sociology	4 or 5
Elective	5	Elective	5

SENIOR YEAR

American History	3	American History	3
Economics	3 or 2	Economics	3 or 2
Politics	3 or 2	Politics	3 or 2
Sociology	2 or 3	Sociology	2 or 3
Elective	4 or 5	Elective	4 or 5

SPECIAL COURSES

The freshman and sophomore years in preparation for the junior and senior years to be devoted to the special courses outlined in Political and Social Science should be practically the same for all the special courses as the work above outlined for freshmen and sophomores in the general course of Political and Social Science, except that in preparation for

the course in commerce another group of subjects may be substituted.

The special courses here outlined are based on the group principle of election; modifications may be made at the pleasure of the student to bring them more specifically within the scope of his purposes.

COURSE IN COMMERCE

The work of the freshman and sophomore years may be the same as that above outlined for the general course in Political and Social Science; it is recommended that economic geography (economics 31), followed by transportation (economics 10), be elected in addition to economics 1 and 6 in the sophomore year. If the student desires to do special work in applied science he should elect early in his course of study one or more general courses in science. The special attention of those contemplating preparation for certain lines of trade or for certain forms of the public service, for example, the consular service, is called to the importance of an adequate knowledge of modern languages. The University at present offers: German, French, Spanish, Italian, Dutch, and Scandinavian.

JUNIOR OR SENIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
Modern Industrialism	3	Corporation Finance, and Accounting	3
Currency and Banking	3	Public Finance	3
Taxation	2	Transportation	2
Materials of Commerce	4	Materials of Commerce	4
Elective	4	Elective	4

SENIOR OR GRADUATE YEAR

Commercial Law	3	Commercial Law	3
International Commerce	2	Commercial Treaties	2
International Law	2	Commerce and Consular Service	2
Distribution of Wealth	2	Colonial Government	2
Elective	6	Elective	6

COURSE IN ADMINISTRATION

JUNIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
Principles of American Government	3	Contemporary State Legislation	3
Municipal Government	2	Colonial Government	2
Theory and Technique of Statistics	3	Public Finance	3
Modern History	2 or 3	Modern History	2 or 3
Elective	5 or 4	Elective	5 or 4

SENIOR YEAR

Elementary Law	3	Constitutional Law	3
Administrative Law	2	Administrative Law	2
Introduction to Sociology	3	Social Amelioration	3
International Law and Diplomacy	2	Political Philosophy	2
Elective	5	Elective	5

COURSE IN STATISTICS

JUNIOR OR SENIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
Business Organization (Economics 29)	3	Corporation Finance and Accounting	3
Theory and Technique of Statistics	3	Economic and Social Statistics	3
Analytics and Calculus	2	Analytics and Calculus	2
Political Economy	3 or 2	Public Finance	3 or 2
Elective	4 or 5	Elective	4 or 5

SENIOR OR GRADUATE YEAR

Advanced Statistics, Seminary work	3	Advanced Statistics, Seminary work	3
The Theory of Probabilities	2	The Theory of Probabilities	2
Administrative Law	2	Administrative Law	2
American History	3	American History	3
Elective	5	Elective	5

COURSE IN MODERN HISTORY

JUNIOR OR SENIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
English History	3	English History	3
History of France	2	History of Germany	2
Principles of American Government	3	Comparative State Legislation	3
Political Economy	2 or 3	Public Finance	2 or 3
Elective	5	Elective	5

SENIOR OR GRADUATE YEAR

American History	3	American History	3
Europe in the XIX Century	2	England under the House of Hanover	2
Introduction to Sociology	3	Social Amelioration	3
Local Government	2	Colonial Government	2
Elective	5	Elective	5

COURSE IN PRACTICAL PHILANTHROPHY

JUNIOR OR SENIOR YEAR

First Semester	HOURS	*Second Semester*	HOURS
General Sociology	3	General Sociology	3
Psychology	3	Psychology	3
Modern History	3 or 2	Modern History	3 or 2
Education	3 or 2	Ethics	2
Elective	4 or 5	Elective	5

SENIOR OR GRADUATE YEAR

Applied Sociology	4	Applied Sociology	6
Distribution of Wealth	2	Social Legislation	2
Theory and Technique of Statistics	3	Social Statistics	1
Abnormal Psychology	2	Administrative Law	2
Elective	4 or 5	Elective	5

PUBLICATIONS

The Faculty of Political and Social Science are the editors of a series of studies in Sociology, Economics, Politics, and

History, of which the following have so far appeared: Vol. 1, Studies in the Politics of Aristotle, and the Republic of Plato, by ISAAC ALTHAUS LOOS. The University Press, 1899, pp. 296. Vol. 2, No. 1, The Early History of Banking in Iowa, by FRED D. MERRITT, M. A., Ph. D. The University Press, 1900, pp. 150. Vol. 2, No. 2, The Development of Political Thought in Japan, by KIYOSHI KAWAKAMI, 1903.

THE POLITICAL SCIENCE CLUB

The Political Science Club is devoted to the cultivation and advancement of the political and social sciences. The club has held regular meetings since October, 1896. A formal organization was effected in January, 1897. The club now holds fortnightly sessions from October to May each year. At these sessions papers are read by members or by invited guests, presenting the results of original investigation in some subject in any one of the following group of sciences: History, economics, sociology, politics, law, education, and ethics. The membership of the club is limited to the faculties of instruction in the several departments interested.

THE SUMMER SESSION

JUNE 22—AUGUST 1, 1903

THE SUMMER SESSION

FACULTY AND INSTRUCTORS

GEORGE EDWIN MACLEAN, B. A., 1871; M. A., 1874, Williams; B. D., 1877, Yale; PH. D., 1883, Leipzig; LL. D., 1895, Williams.
President, 1899.* 603 College St. (2 Old Capitol)

CHARLES BUNDY WILSON, B. A., 1884; M. A., 1886, Cornell University.
Professor and Head of the Department of German Language and Literature, 1888. 311 N. Capitol St. (101 Liberal Arts)

ANDREW ANDERSON VEBLEN, B. A., 1877; M. A., 1880, Carleton College.
Professor and Head of the Department of Physics, and Secretary of the Faculty of the College of Liberal Arts, 1883.
707 N. Dubuque St. (Hall of Physics)

LAENAS GIFFORD WELD, B. S., 1883; M. A., 1885, Iowa.
Professor of Mathematics and Head of the Department; Dean of the Graduate College, 1886.
612 N. Dubuque St. (113 Liberal Arts)

CHARLES CLEVELAND NUTTING, B. A., 1880; M. A., 1882, Blackburn University.
Professor and Head of the Department of Zoology, and Curator of the Museum of Natural History, 1886.
922 E. Washington St. (Science Hall, third floor)

ISAAC ALTHAUS LOOS, B. A., 1876; M. A., 1879, Otterbein; B. D., 1881, Yale; D. C. L., 1898, Penn Coll.
Professor of Political Economy and Sociology, and Director of the School of Political and Social Science, 1889.
11 E. Bloomington St. (205 Liberal Arts)

FREDERICK C. L. VAN STEENDEREN, M. A., 1893, Penn Coll.
Professor and Head of the Department of French Language and Literature, 1893. 309 Church St. (120 Liberal Arts)

*Date following title indicates year of appointment to service in the University. The names are arranged in groups according to seniority of appointment to present rank.

BENJAMIN FRANKLIN SHAMBAUGH, B. PH., 1892; M. A., 1893, Iowa; PH. D., 1895, Pennsylvania.
Professor and Head of the Department of Political Science, 1895.
219 N. Clinton St. (202 Liberal Arts)

CLARK FISHER ANSLEY, B. A., 1890, Nebraska.
Professor and Head of the Department of English, 1899.
1041 Woodlawn. (227 Liberal Arts.)

HENRY EVARTS GORDON, B. A., 1879; M. A. 1901, Amherst.
Professor of Public Speaking, 1900.
303 N. Capitol St. (321 Liberal Arts)

ARTHUR FAIRBANKS, B. A., 1886, Dartmouth; PH. D., 1890, Freiburg, i. B.
Professor of Greek Literature and Archæology, and Head of the Department of Greek; Secretary of the Graduate Faculty; University Editor, 1900. 7 E. Bloomington St. (310 Liberal Arts)

FREDERICK ELMER BOLTON, B. S., 1893; M. S., 1896, Wisconsin; PH. D., 1898, Clark.
Professor and Head of the Department of Education; Director of the Summer Session, 1900.
1019 College St. (217 Liberal Arts)

BOHUMIL SHIMEK, C. E., 1883; M. S., 1902, Iowa.
Professor of Physiological Botany; Professor of Botany in the College of Pharmacy, and Curator of the Herbarium, 1895.
529 Brown St. (Science Hall, second floor)

FRANKLIN HAZEN POTTER, B. A., 1892; M. A., 1895, Colgate.
Professor of Latin, 1895. 527 N. Linn St. (111 Liberal Arts)

CARL EMIL SEASHORE, B. A., 1891, Gustavus Adolphus; PH. D., 1895, Yale.
Professor of Psychology, 1897. 204 Fairchild St. (211 Liberal Arts)

HARRY GRANT PLUM, B. PH., 1894; M. A., 1896, Iowa.
Professor of European History, 1900.
222 Fairchild St. (315 Liberal Arts)

JOHN FRANKLIN BROWN, B. PH., 1889; M. A., 1895, Earlham; PH. D., 1896, Cornell.
Professor in Education, and Inspector of High Schools, 1901.
110 N. Clinton St. (216 Liberal Arts

JOHN VAN ETTEN WESTFALL, B. S., 1895, Cornell; PH. D., 1898, Leipzig.
Instructor in Mathematics, 1899. 127½ S. Dubuque St. (12 Liberal Arts)

MABEL CLARE WILLIAMS, B. PH., 1899, Iowa.
Instructor in Philosophy in the Summer Session, 1899.

HELEN MAY EDDY, B. A., 1900, Iowa.
Instructor in Latin in the Summer Session, 1901.
4 Jefferson St. (112 Liberal Arts)

WALTER MARTINUS BOEHM, B. S., 1902, Iowa.
Assistant in Physics in the Summer Session, 1900.
406 S. Clinton St. (Hall of Physics)

WILLIAM B. BELL, B. A., 1902, Iowa.
Assistant in Zoology in the Summer Session, 1902.

S. J. SEAVER, B. A., 1902, Morningside, Col.
Assistant in Botany in the Summer Session, 1902.

CHARLES ALLYN WILLIAMS, B. A., 1899; M. A., 1901, Iowa.
Assistant in German, Summer Session, 1903.

For the Faculty of the *Summer School for Library Training* see page 38 of this calendar.

Other instructors, demonstrators, assistants, and readers will be named later. Provisions may also be made for additional subjects.

THE SUMMER SESSION COMMITTEE

PROFESSOR BOLTON, chairman; PROFESSOR SHIMEK, secretary; PROFESSORS WELD, WILCOX, ANSLEY.

GENERAL INFORMATION

GROWTH OF THE SUMMER SESSION

In the three years of its maintenance the attendance has been nearly doubled in numbers, and each year there has been an increasing number of advanced students to take advantage of the opportunities offered for uninterrupted study along special lines.

FOR WHOM DESIGNED

The summer session is an integral part of the regular university work, being the first term of the scholastic year. New students can enter at this time as well as at the beginning of either semester. The courses are so arranged as to supplement those offered during the rest of the year and hence new or old students find no difficulty in classifying and securing work adapted to their needs. The experience of previous sessions has demonstrated the value of the work for the following classes of students:

1. *Superintendents* and *Principals* who desire to continue academic and professional work and come in touch with recent advances in education.

2. *High School Teachers* who wish to study special subject matter or educational theory.

3. *Elementary and Grammar School Teachers.* Many courses, especially those in literature, pedagogy, psychology, ethics, history, politics, nature study and sociology, will be of exceeding value to teachers in grades below the high schools as well as to those in the high schools. Success in the elementary school depends as much upon breadth of culture as upon technique and primary methods.

4. *Candidates for State Certificates* will find an opportunity to refresh themselves on most of the subjects included in the state examinations.

5. *Regular Students of the University* who desire to shorten the time of their course may do so by attending the

summer sessions. Many students throughout the country now by this means graduate in three years.

6. *Normal School Graduates* and others desiring to ultimately take a degree will find it to their advantage to attend.

7. *Graduate Students* will find ample opportunity in all departments to pursue work advantageously.

8. *Persons desiring preparatory credits* for entrance to the University will find several subjects of special value. See Latin, German, French, English, Mathematics.

ADMISSION

All students seeking credit in the University will be expected to meet the requirements for admission as stated in the Annual Calendar.

All other applicants for admission to the Summer Session will be permitted to schedule for such work as, in the judgment of the professors concerned, they may be able to pursue to advantage.

UNIVERSITY CREDIT

1. Credit will be given for all work of collegiate grade, unless otherwise stated, if the student has complied with entrance requirements. 2. No student desiring credit may take more than twenty hours per week and credit will not be allowed for duplicated work.

Ample opportunity will be afforded students to schedule for work leading either to university or to preparatory credit. The maximum amount of credit which may be earned in the Summer Session is six and two-thirds semester hours.

FACILITIES

All the resourses of the University are placed at the disposal of the students of the summer session. All the laboratories and libraries in the departments of letters and science will be open, and every department will offer work of a grade equal to that given during the rest of the year. In most cases the heads of the departments will give instruction.

In a few cases prominent men from other institutions may be called to substitute or to assist.

GENERAL LECTURES AND ROUND TABLE MEETINGS

Saturday morning of each week will be devoted to general lectures and to the weekly chapel exercise.

Every summer a series of public lectures, many of them illustrated, has been provided without expense for the students of the summer session. Arrangements are under way to offer an especially attractive programme by members of the faculty, eminent superintendents, and others. A definite programme of lectures to be given will be announced at the opening of the session.

Round table meetings for the discussion of various topics of interest to educators will be organized by those in attendance upon the session, as circumstances may suggest.

There will be opportunities to listen to addresses by eminent educators from other institutions.

SPECIAL COURSES

ENGLISH—In view of the increased interest in better English teaching in the public schools, an effort is being made to secure the best available specialist and authority on high school English to supplement the courses offered by Professor Ansley.

NATURE STUDY—Professor Shimek of the Department of Botany will offer a course in "out-door botany" that will be of value to every high school teacher of botany and every teacher in the grades.

EDUCATION. THE HIGH SCHOOL—Professor Brown, the high school inspector, will lecture daily upon topics of special importance to every high school teacher in Iowa. Needs of the schools as revealed by his tours of inspection will be pointed out. Ample opportunity will be given for reading and discussion. This can be made a six weeks' round table on problems of Iowa high schools.

Professor Bolton will contribute on the general subject of secondary education, from his special study of the subject in several portions of the United States and Germany.

Nearly every department offers a teachers' course in addition to the regular academic work.

STATE EXAMINATIONS

In the special interest of those students who may wish to secure state certificates or state diplomas, the State Board of Educational Examiners will hold an examination at the University on July 30, 31, 1903.

EXPENSES

The tuition for the summer session is five dollars, which fee covers all dues to the University.

There are no dormitories and no commons connected with the University. Clubs may be formed, in which the cost of day board is from $2.00 to $2.50 per week. Room rent varies from 50 cents to $1.50 per week for each student. Boarding and lodging in private houses can be obtained for from $3 to $5 per week.

Inquiries regarding rooms and board may be made of the Secretary of the Young Men's Christian Association.

REGISTRATION

Students upon arriving at the University, should present themselves at the office of the Director of the Summer Session, room 217, Hall of Liberal Arts, for registration and assignment to classes.

Office hours of the Director of Summer Session, 11–12 and 2–3.

Office hours of the President of the University, 11 A. M. to 12:15 P. M.

Any further information desired may be obtained by addressing the President of the University, Iowa City, Iowa, or Professor Frederick E. Bolton, Director of the Summer Session.

OUTLINE OF THE PLAN OF INSTRUCTION

The courses offered in the several departments represented in the Summer Session are here outlined. Those desiring more detailed information should communicate directly with the professors concerned.

GREEK LANGUAGE AND LITERATURE

PROFESSOR FAIRBANKS; PROFESSOR POTTER

i. BEGINNING GREEK—White's *First Greek Book*. Students completing this course successfully are able to go on with course 2 (Xenophon's Anabasis) in the second semester, or to continue their work in the following summer session. Ten hours a week; three or four semester hours credit. Professor FAIRBANKS.

Daily at 8:00 and 2:30.

ii. HOMER—Readings from the latter part of the Iliad. A course for students who have had one or two years' work in Greek. Special attention is paid to the needs of teachers of the Greek and Latin epics. Five hours a week; two hours credit. Professor POTTER.

iii. DEMOSTHENES—A course for graduate students on the private orations of Demosthenes. Lectures on legal antiquities, and on the development of forensic oratory in Greece. Professor FIARBANKS.

Daily at 10:00.

iv. GREEK AND ROMAN MYTHOLOGY—Occasional lectures. Professor FAIRBANKS.

LATIN

PROFESSOR POTTER; PROFESSOR FAIRBANKS, MISS EDDY

i. CÆSAR—Selections from Books V–VII of the Gallic War. Five hours. Miss EDDY.

ii. LATIN COMPOSITION—Five hours. Miss EDDY.

iii. VERGIL—Books VII–XII of the Æneid. Lectures on Mythology. The course is open to students who have completed their preparatory work in Latin, but the special aim is to give Latin teachers a better understanding of the literary character of the poem. Professor FAIRBANKS. Daily at 9:00.

iv. TERENCE — The *Andria*, *Adelphi*, and *Heauton timorumenos*. Open to students who have had at least two years of college Latin. Five hours. Professor POTTER.

v. *COMPARATIVE GRAMMAR OF GREEK AND LATIN — A knowledge of Sanskrit and the ability to read German and French are very desirable for this course, but not necessary. Five hours. Professor POTTER.

vi. TEACHERS' COURSE — A series of lectures and conferences on subjects connected with the teaching of Latin. Wednesdays, at 4:30. Professor POTTER.

vii. Four illustrated lectures on the archæology and topography of Rome. Professor POTTER.

SANSKRIT

i. *A supplementary reading course for the purpose of drill in vocabulary and grammatical forms. Selections from the Nala and easy stories from Sanskrit folk-lore. Open to students who have had elementary Sanskrit. Five hours. Professor POTTER.

GERMAN LANGUAGE AND LITERATURE

PROFESSOR WILSON; MR. WILLIAMS

i. GERMAN STORY — Open to students who have studied German at least one year. Should be taken in connection with course ii. Conducted in German and English. Credit, one semester hour. Mon., Wed., Fri., at 8.00. Professor WILSON.

*NOTE. The course in Comparative Grammar or the course in Sanskrit will be withdrawn. Students wishing to take either course should notify Professor Potter before June 1st, after which notice will be given as to which course will be offered.

ii. GERMAN COMPOSITION — Designed to give such persons as already have an acquaintance with German, some practice in composition and conversation. Should be taken in connection with course i. Conducted in German. Credit, two-thirds of one semester hour. Tu., Th., at 8:00. Professor WILSON.

iii. CONFERENCE ON METHODS—Discussion of the methods of presenting the most essential parts of German grammar, and examination of the Report of the Committee of Twelve of the Modern Language Association of America. Intended primarily for teachers, and not open to students who have not studied German. Credit, two-thirds of one semester hour. Tu., Th., at 9:00. Professor WILSON.

iv. SEMINARY—For graduate and advanced students. The instruction will be personal, and students will be allowed some latitude in the choice of subjects. The work will be carried on in the German library, where students will have direct access to the sources. The amount of credit will be determined for each case separately. Candidates for this course should communicate with the instructor as soon as possible. Mon., Wed., Fri., at 9:00. Professor WILSON, and Mr. WILLIAMS.

FRENCH AND SPANISH*

PROFESSOR VAN STEENDEREN; MR. ————

i. ELEMENTARY COURSE IN FRENCH—Designed for teachers and students who wish to learn to read French sufficiently well to enable them to continue the study themselves for purposes of research in other branches and for general culture. Good training in pronunciation. Study of grammar for reading purposes only. *Edgren's Short French Grammar*, and *Super's Reader*. Daily, five hours a week.

ii. CONTEMPORARY FRENCH NOVEL—Open to students who have studied French during one semester at least. After a few lectures on the literary movements of the nineteenth century, the class will take up the study of short novels and

*The courses in this department form units by themselves and are not parts of longer courses.

stories by Mérimée, Alphonse Daudet, and Guy de Maupassant. Frequent opportunities for expression in French will be given. Three hours a week.

iii. ELEMENTARY COURSE IN SPANISH—Designed to impart a fair ability in the reading and the practical use of everyday Spanish. The course includes drill in conversation, business correspondence, reading of newspapers. *Introduccion à la lengua Castellana* by Marion y des Garennes, and *Matzke's Spanish Reader.* Daily, five hours a week.

ENGLISH

PROFESSOR ANSLEY; PROFESSOR————

i. CHAUCER—The purpose of this course is to enable students to read the English of Chaucer and his contemporaries. Mon., Wed., Fri., at 9:00.

ii. SHAKESPEARE—Some elements of literary art exemplified in The Tragedy of Hamlet. Mon., Tu., Wed., Th., Fri., at 10:00.

iii. BROWNING—An introduction to the poetry of Robert Browning, with study of selected poems. Tu., Th., at 9:00.

Additional courses by another instructor will be announced later.

PUBLIC SPEAKING

PROFESSOR GORDON

i. EXPRESSION IN VOICE AND ACTION—A general course to prepare the student for the work of public speaking in all its forms. Each student is examined with reference to his individual needs, and an effort is made to adapt the work to such needs. Five hours a week.

ii. PUBLIC ADDRESS — The preparation and presentation of an argument as to its preliminary reading, structure, evidence, briefing, style, and delivery are developed. This course must have been preceded by or must be accompanied by course i. Five hours a week.

HISTORY

PROFESSOR PLUM

i. METHODS OF HISTORICAL STUDY AND TEACHING—The

purpose of this course is to give practical help to those especially interested in the study and teaching of History. It is a study of material, its character, development, and arrangement. There will be some bibliographical work and limited working bibliographies will be presented for the various fields and periods of History. The work in methods will be illustrated by the study of special documents and the investigation of special topics. Mon., Wed., Fri., at 8:00.

ii. THE HOLY ROMAN EMPIRE TO THE 16TH CENTURY.—Lectures and readings. This course will comprehend a study of the civilization of Europe from the point of view of the German Empire as organized by Charles the Great. It will pass in review the political, social, and religious organization of the Middle Ages, and point out the changes which preceded the modern forms of organization. Daily at 10:00.

iii. THE RENAISSANCE AND THE ANTECEDENTS OF THE PROTESTANT REVOLUTION.—The aim in this subject will be to show the close relationship of the social, intellectual, and religious revolution which occured in the early sixteenth century. The religious and political organization of the church will be examined, and the causes which induced its partial overthrow. Against this development will be placed the growth of nationality and political ideas on the one hand, and the intellectual life on the other. Tu., Th., at 8:00.

iv. THE HEROES OF THE REFORMATION—A course of six lectures as follows:

(1) John Huss, the Bohemian Heretic.
(2) Martin Luther, the German Monk.
(3) Desiderius Erasmus, the German Humanist.
(4) Ulrich von Hutten, the German Patriot.
(5) John Calvin, the Protestant Statesman.
(6) John Knox, the Scotch Presbyterian.

No registration will be required for this course, but students registered for course iii may receive credit for this course also by regularly registering for both courses. Wed., at 1:30.

POLITICAL ECONOMY AND SOCIOLOGY

PROFESSOR LOOS.

i. THE THEORY OF VALUE AND DISTRIBUTION—Mon., Wed., Fri., at 10:00.

ii. THE TRUST PROBLEM—The modern organization of industry; the nature of monopoly and proposed methods of trust regulation. Tu., Th., at 10:00.

iii. INTRODUCTION TO SOCIOLOGY—A study of the primary forms and forces of human association. Daily, at 8:00.

iv. CONTEMPORARY SOCIALISM—Sat., at 9:00. May be counted as a third hour if taken in connection with course ii.

POLITICAL SCIENCE

PROFESSOR SHAMBAUGH.

i. INTRODUCTION TO POLITICAL AND SOCIAL SCIENCE.—Lectures on the origin of man, the origin of institutions, the beginnings of culture, the origin of government, and the laws and processes of political and social evolution.

Five hours a week; Mon., Tu., Wed., Th., Fri., at 10:00.

ii. IOWA HISTORY AND POLITICS—Lectures on the political and constitutional history of Iowa. An attempt will be made to make this course especially helpful to those who are interested in the teaching of Civics in the public schools. Some attention will be given to the methods of teaching Civics.

Three hours a week; Mon., Wed., Fri., at 11:00.

iii. MODERN EUROPEAN GOVERNMENTS—A comparative study of the leading governments of modern Europe, including the Government of England, the Government of Switzerland, the Government of France, the Government of Germany, and the Government of Belgium.

Two hours a week; Tu., Th., at 11:00.

PHILOSOPHY AND PSYCHOLOGY

PROFESSOR SEASHORE; PROFESSOR BROWN, MISS WILLIAMS.

i. INTRODUCTION TO PSYCHOLOGY—A brief survey of

the entire field of psychology, especially adapted for teachers who can take only a short course. The lectures will be accompanied by demonstrations with apparatus and other illustrative material from the psychological laboratory, and by supplementary reading. This course serves as an introduction to all other courses in the department of Philosophy. Daily, at 8:00. PROFESSOR SEASHORE.

ii. INTRODUCTION TO PHILOSOPHY—An elementary study of fundamental philosophical questions with some reference to historical relations. Designed for students who wish to make a brief study of the great problems of philosophy and their significance in other fields of thought. Paulsen's *Introduction to Philosophy* will be used as a basis. Lectures, required reading, and recitations. Daily, at 9:00. Professor BROWN.

iii. ETHICS — An elementary course on the psychology of conduct and the moral judgment, the development of conduct and ethical theories, the standards of morality, duties, virtues, and the moral life of the individual and society. Mon., Wed., Fri., at 10.00, Miss WILLIAMS.

iv. LABORATORY COURSE IN PSYCHOLOGY—A series of selected experiments so arranged as to familiarize the student with the method, the apparatus, and the results of typical experiments in each of the approved lines of psychological studies, and especially to furnish training in accurate observation and interpretation of mental processes. May be taken with or in sequence to course i. Three laboratory periods and two lectures a week. Daily, at 1:30. Professor SEASHORE, and Miss WILLIAMS.

v. RESEARCH IN PSYCHOLOGY—Original investigation of special problems in psychology. Advanced individual work in the laboratory for graduate students. In this course special attention may be given to preparation for the experimental study of school children. Professor SEASHORE.

THE SCIENCE AND ART OF EDUCATION

PROFESSOR BOLTON; PROFESSOR BROWN.

i. PROBLEMS IN EDUCATIONAL PHILOSOPHY — Some of

the most fundamental topics in the philosophy of education will be carefully considered. Designed for those who have had some elementary pedagogy or teaching experience. Superintendents, principals, and teachers desiring to consider carefully from the most modern standpoints some of the fundamental problems of education will find this course adapted to their needs. Lectures and assigned readings. Will supplement, and not duplicate course iii given last summer. Professsor BOLTON.

Mon., Wed., Fri., at 10:00.

ii. CHILD STUDY AND ELEMENTARY EDUCATION—The scope, methods, and literature of child study; its relation to elementary education, and its value and necessity for parents and teachers. Such topics as imitation, children's play, imagination, the beginnings of child language, elementary ideas of law and order, beginnings of moral notions, fears, use of stories, nature study, etc., will be considered. Lectures and readings. Professor BOLTON.

Mon., Wed., Fri., at 3:30.

iii. THE HIGH SCHOOL—General problems, as, historical considerations, relations to the lower grades and to the colleges, courses of study, educational values, sequence of studies, methods, text-books, government and training of adolescents, and the organization of the high school. Special problems of Iowa high schools as seen by the Inspector will receive careful consideration. Lectures and required reading. Professor BROWN. Professor BOLTON will give three special lectures.

Daily, at 11:00.

iv. HISTORY OF EDUCATION AND SCHOOL LAW—A consideration of the most important topics in the history of education. A few days will be given to the most important features of school law. The course is especially designed for those who expect to take the state examinations. Five hours a week. The hour will be arranged to suit the convenience of the class. Professor BOLTON.

v. WEEKLY ROUND TABLE—The purpose will be to discuss current educational topics and to get in touch with educational literature. Credit given, if taken in connection

with some other course. Professor BOLTON; Professor BROWN. Wed., at 4:30.

vi. RESEARCH WORK FOR ADVANCED STUDENTS—Advanced students pursuing research and special investigations will be afforded ample opportunities and will receive personal direction in their work. Professor BOLTON.

ZOOLOGY

PROFESSOR NUTTING; MR. BELL

GENERAL ZOOLOGY — A number of typical invertebrata will be studied, including Paramecium, Hydroid, Jellyfish, Coral, Sea Fan, Star-fish, Sea-Urchin, Earth-Worm, Tube-dwelling Worm, Crayfish, Crab, and Grasshopper.

The Zoological relationship of each of these forms will be discussed and the outlines of classification given. One hour a week will be devoted to a lecture in which general biological principles will be discussed and additional information concerning special groups of animals will be presented. This will be essentially a laboratory course for which ample material will be available from the Museum of Natural History. Five hours a week.

BOTANY

PROFESSOR SHIMEK; MR. SEAVER

i. A TEACHERS' COURSE IN PLANT ECOLOGY—Intended primarily for teachers of botany in Iowa high schools. The course consists of laboratory and field investigation of the local flora, with special reference to the conditions which determine the distribution of plants, especially in Iowa. It is essentially a study of the "botany of out-of-doors," and is intended to familiarize the teacher with illustrative material available for class use.

Directions and opportunities are also offered for the preservation of such illustrative materials for high school use.

In connection with this course one hour a week will be devoted to the discussion of certain phases of nature study. Five hours a week.

ii. COMPARATIVE MORPHOLOGY OF PLANT TYPES.—This

course consists of lectures and laboratory investigation of the structure and life-history of local and state types of the principal groups of plants. Two hours daily are required in the laboratory. Slime moulds, schizophytes, diatoms, algæ, fungi, mosses, ferns, and flowering plants are successively taken up in the laboratory, and some attention is also given to field work.

Five hours a week.

iii. GENERAL PLANT HISTOLOGY.—This is a laboratory course requiring two hours daily, and is supplemented by lectures. The microscopic structure of higher plants is studied, and the student receives instruction in the laboratory technique required for the preparation of sections, etc.

In connection with this course the function of the cell will also be briefly considered.

Five hours a week.

iv. SPECIAL COURSES in advanced botanical research may be arranged for those who are prepared for such work. Time arranged to suit applicants.

Illustrated lectures will supplement all of the courses.

The extensive collections in the University Herbarium, and the botanical reference library, will be available for reference.

PHYSICS

PROFESSOR VEBLEN; MR. BOEHM

i. MECHANICS—Lectures, recitations, and demonstrations, to cover the work in the mechanics of solids and fluids, subtantially as pursued in the first year's course in physics, given during the regular session of the University. To take this course students should have at least the mathematical knowledge and training requisite to admit them to the freshman class. Daily at 11:00.

ii. LABORATORY WORK—The work in the laboratory being entirely individual, students of various degrees of advancement can be accommodated at the same time. It is required, for admission to laboratory courses, that the candidate should have at least a good elementary preparation in physics. Students who have had work equivalent to the

first year's course in physics in the University, may obtain university credit for laboratory work pursued for not less than six hours a week during the session. For teachers the work in the laboratory can be arranged to meet individual needs, such as gaining familiarity with particular pieces of apparatus, or carrying out special lines of experimentation.

The laboratory will be open to students every forenoon and afternoon except Saturday, and it is expected that each student will work during two consecutive hours upon each exercise. Courses of two or more exercises a week may be arranged. Amount of credit to be determined at the end of the term.

iii. GRADUATE WORK—The laboratory and the special library of the department will be open to graduate students under the usual conditions. They will enjoy the same facilities and advantages as are offered at other times of the year to those pursuing special or advanced work.

In the event of Professor Veblen's absence during the summer session, his place will be taken by a competent substitute.

MATHEMATICS AND ASTRONOMY

PROFESSOR WELD; DR. WESTFALL

The following courses in mathematics will be given with special reference to the needs of high school teachers. University credit may be given only for courses iv., and v., and under certain circumstances, course i. Courses ii., and iii., are arranged with reference to the needs of teachers preparing to take examinations for state diplomas and of students seeking admission to the University.

The instructors will give liberally of their time and services to those wishing direction in any of the lines of study coming within the scope of the department. Special appointments will be made with individuals.

i. ALGEBRA — This will be essentially a teachers' course, both the subject matter and methods of presentation being given careful attention. The theories of the minus sign and of the exponent will be considered at the outset. Drill work in the fundamental operations will be given, especially

in factoring. The simple equation of the first degree will next be studied and geometrically interpreted, after which the quadratic equation will be treated in a similar manner. Attention will also be given to systems of simultaneous equations. The course will include a study of imaginary expressions, and their interpretation. Three hours a week; Mon., Wed., Fri., at 9:00. Professor WELD.

ii. PLANE GEOMETRY — This course will be presented with due reference to methods of instruction. The so-called *heuristic*, laboratory, and other methods of teaching geometry will be discussed and illustrated. At the same time the work will be so conducted as to enable the student to obtain a comprehensive view of the subject. Especial notice will be taken of the needs of those intending to pass the examinations for state diplomas or for admission to the University. Three hours a week; Mon., Wed., Fri., at 9:00. Dr. WESTFALL.

iii. SOLID GEOMETRY—Those deficient in solid geometry and who intend to enter the University in the near future will be given an opportunity to make up this requirement for admission to full freshman standing. Two hours a week; Tu., Th., at 9:00. Dr. WESTFALL.

iv. TRIGONOMETRY — This course will be limited to plane trigonometry and can be taken only by those having a good knowledge of geometry and algebra. The subject will be studied with special reference to its practical applications to surveying, navigation, mensuration, etc. Credit, one semester hour. Four hours a week; Mon., Tu., Wed., Th., at 7:00. Professor WELD.

v. HIGHER MATHEMATICS—A course in some branch of higher mathematics will be given, provided a sufficient number of properly qualified students present themselves for such work. The credit allowed will depend upon the amount and quality of the work done. Five hours a week; Tu., Th., at 8:00, and Mon., Wed., Fri., at 9:00. Professor WELD, Dr. WESTFALL.

vi. ASTRONOMY—If desired, a series of lectures will be given on some of the principal topics of Astronomy. These

will be supplemented by the exhibition of the series of lantern slides belonging to the department and by visits to the observatory, where many of the more interesting celestial objects may be located and studied with the aid of the telescope. Time to be arranged. Professor WELD.

THE SUMMER SCHOOL

FOR

LIBRARY TRAINING

A DEPARTMENT OF THE SUMMER SESSION, UNDER THE AUSPICES OF THE

IOWA LIBRARY COMMISSION

MEMBERS OF THE COMMISSION *Ex-officiis*

JOHNSON BRIGHAM, *State Librarian*,
President.

RICHARD C. BARRETT, *State Superintendent of Public Instruction.*

GEORGE E. MACLEAN, *President of the State University.*

MEMBERS OF THE COMMISSION BY APPOINTMENT

MRS. HARRIET C. TOWNER, Corning.
MRS. JESSIE WAITE DAVIDSON, Burlington.
MRS. ELIZABETH S. NORRIS, Grinnell.
CAPT. W. H. JOHNSTON, Ft. Dodge.

ALICE S. TYLER,
Secretary of the Commission.

SUMMER LIBRARY SCHOOL

FACULTY

GEORGE E. MACLEAN, Ph. D., LL. D.,
President, and Lecturer on Library Subjects.

ALICE S. TYLER, *Illinois State Library School*,
Director, and Instructor in General Library Subjects.

ESTHER CRAWFORD, (B. L., Iowa State College,) *N. Y. State Library School.*
Head Instructor in Classification and Cataloging.

HARRIET A. WOOD, (B. A., Vassar,) *N. Y. State Library School.*
Resident Director and Instructor in Reference Work, Accession, and Shelf List.

ANNIE CARROLL MOORE, *Children's Librarian, Pratt Institute Library, Brooklyn, N. Y.*
Library Work with Children, and Children's Literature.

MARJORIE GRAVES, *Illinois State Library School.*
Reviser.

LECTURERS

JOHNSON BRIGHAM, State Librarian, Des Moines.
C. F. ANSLEY, Professor of English, State University.
BERTHA G. RIDGWAY, Librarian, State University.
MRS. H. M. TOWNER, Library Commissioner, Corning.
MARY EILEEN AHERN, Editor, *The Public Library*, Chicago.
EDITH TOBITT, Librarian, Public Library, Omaha, Neb.
And others.

IOWA SUMMER LIBRARY SCHOOL

The Iowa Library Commission takes pleasure in announcing that the third annual session of the Summer School for Library Training will be held at the State University, Iowa City, Iowa, as a department of the Summer Session of the State University of Iowa, June 22 to August 1, 1903.

OBJECT

This course is intended for the librarians of the smaller libraries, for assistants in the larger libraries, and for those definitely appointed to library positions, who wish to prepare for their work. It is in no sense offered as a substitute for the full course of one of the regular library schools, but is given for those who feel their lack of knowledge of modern library methods and have not the time or means to attend a library school. By securing a leave of absence for six weeks they can in a brief, systematic course, such as is planned, gain a broader view of the work as a whole. The aim will be to give as thorough a course of technical library training as can be compressed into six weeks of close work, with the needs of the Iowa libraries especially in view.

SUBJECTS

In all cases where the subject admits, instruction will be accompanied by practice work which will be carefully revised and criticised.

The following subjects will be included in the lectures given during the course:

Note-taking,
Library handwriting,
Statistics,
Order department,

Book buying,
Trade bibliography,
Mechanical preparation of books,
Accessioning,
Shelf listing,
Classification,
Author numbers,
Cataloging,
Serials,
Loan systems,
Library work with children,
Reference work,
Reading lists,
Interior arrangement of a library,
Libraries and schools,
Library extension,
Library commissions and travelling libraries,
Library administration,
Binding and repair of books,
Library ideals,
Library architecture.

INSTRUCTORS

The instruction in classification and cataloging will be given by Miss Esther Crawford, of the Western Reserve University Library, Cleveland, O., who is so well and favorably known to Iowa librarians. Miss Crawford is recognized as an authority in her subjects and her instruction is given from the fulness of wide experience and close study.

Library work with children will again be given by Miss Annie Carroll Moore, Head of the Children's Department, Pratt Institute Library, Brooklyn, N. Y. Miss Moore has been intimately identified with the movement in recent years to give this work the prominence it deserves, and now has, in the libraries of the United States. Her course in the summer session last year proved a most popular and helpful feature of the school.

Miss Harriet A. Wood, Head Cataloger in the University Library at Iowa City, will give the instruction in reference work and brings to this subject the requisite training and

an experience in reference work which will make this course practical and helpful.

Miss Wood will also give instruction in accession work, shelf listing, and minor subjects.

A trained assistant will revise all technical work daily.

LECTURES

Lectures will be given during the course by members of the Faculty of the State University and members of the Library Commission. Dr. George E. MacLean, President of the State University, Johnson Brigham, State Librarian, and Mrs. H. C. Towner, all members of the Library Commission, are expected to lecture on some of the larger phases of library work.

Miss Tobitt, Librarian of the Omaha, (Neb.) Public Library will lecture on Trade Bibliogradhy and book binding. The Omaha library has its own bindery, hence the actual experience which Miss Tobitt brings to the subject of binding makes these lectures of practical value.

C. F. Ansley, Professor of English in the University, will lecture on subjects which are closely related to library work.

Prominent librarians will be heard during the course, on themes of especial interest. Several lectures of a general character on library subjects will be given by members of the Faculty of the School of Library Training, to which all members of the Summer Session will be admitted.

The Library of the University, comprising about 60,000 volumes, and the Public Library of Iowa City, comprising about 4,000 volumes, will be at the service of the student, affording ample practice work.

COURSES

Subjects of technical interest to library workers, affecting the orderly arrangement and conduct of the library will be given due prominence. The essential records, — accession and shelf,—will be explained with practical work sufficient to make them clear. Simple and practical loan systems will also be discussed.

The course in cataloging and classification will deal with

the fundamentals of each subject, and on the supposition that the student has had little, if any previous instruction.

Classification will be based upon the Decimal System (abridged edition) and the Cutter author numbers will be used. The course in cataloging extends through two sessions, instead of one, as heretofore, thus reducing the "cramming" process and its consequent evils. The first year's course will cover the elementary principles of author and title entry and will extend through the first four and one-half weeks of the session. The second year's course will extend through the entire six weeks, covering the principles of subject and analytical cataloging. The second year's course will be open to only a limited number of students, admission being based on the quality of the first year's work previously done in this school and subsequent experience, or upon satisfactory evidence furnished as to previous training and actual library record work. Former students, who return, are advised to take one of the regular courses outside of the Library School, preferably the course in Literary Criticism under Professor Ansley.

REFERENCE WORK

Reference work will receive the attention which its importance warrants; and helpful methods for aiding students in their researches, the best books on selected subjects, etc., will be discussed.

The course will consist of 12 lectures, and problems likely to arise in actual work will be assigned. The instruction will be based upon *Miss Kroeger's Guide to the Study of Reference Books.* Especial attention will be called to *Selected reference books* (N. Y. State Library School Bulletin 4); and to the excellent list of *Books suggested for school reference libraries* issued by the Buffalo Public Library.

LIBRARY WORK WITH CHILDREN

During the last two weeks of the session, from July 20 to Aug. 1, instruction will be given on this subject and students will be admitted for it alone. No feature of library work is of such vital importance as the work with children. For this reason this will be an especial feature of the school and it is anticipated that many besides librarians will come

for this two weeks' course. Teachers and mothers will find it practical, helpful, and inspiring. Library trustees will get from it much that will help them in dealing with the perplexing question of children's books.

This course includes three series of lectures.

Series I. Special Lectures upon the Principal Classes of Children's Books:

Mythology and fairy tales,
History and historical stories,
Picture books and easy books for little children,
Fiction for boys and girls.

(Book lists will be provided to accompany these lectures. Students will also be given problems in connection with each class of books.)

Series II. Special Lectures upon Important Features of the Work of a Children's Department:

Personal relations between the children's librarian and the children, the teachers, and the parents,
The necessary records and statistics of a children's department,
How to make a picture bulletin and when to make one.

(Experience meetings will be a feature of this series.)

Series III. General Lectures:

The history of children's libraries,
The selection of books for a children's library,
The decorating and furnishing of a children's room or corner,
Cooperation between the public library and the public school,
Library leagues, story-telling, and other special features in library work for children.

(A list of suggested reading will accompany these lectures.)

ENTRANCE REQUIREMENTS

The course is intended especially for Iowa librarians who are in charge of small libraries. Those who have had some experience in library work or wish to prepare for definite positions will be given preference. Inasmuch as emphasis

is laid on practice work and prompt technical revision and correction, the number admitted to the class must be limited.

Students will be received from other states if they meet the admission requirements and if the limit of students is not reached by Iowa applicants. Entrance examinations are not required, but candidates are supposed to have completed a high school course or its equivalent.

As the course in library work for children deals with a subject of such general interest, students will be admitted for this course whether engaged in library work or not, and those from other states will be welcomed.

Applications should be made on the blank form to be obtained of the director, Miss Alice S. Tyler, Iowa Library Commission, Des Moines, and should be sent in not later than May 15, 1903.

BOOKS

The following books will be used in the Summer School. Those marked with an asterisk are published by the U. S. Bureau of Education, Washington, D. C., and will be sent to any address without charge and should be obtained of the Bureau at once. Others will be on sale at the school.

Dewey.	Simplified library school rules	$ 1.25
———	Decimal classification (*or*)	5.00
———	Abridged edition (may be used if student owns it)	1.50
*———	Papers prepared for World's library Congress, 1893	Free
*Cutter.	Rules for a dictionary catalog . . .	Free
———	Decimal author table (two-figure) . . .	1.25
American Library Association.	List of subject headings	2.00
Dana.	Library primer	1.00
*Catalog of A. L. A. Library		Free
Kroeger.	Guide to the study of reference books Houghton	1.25

Supplies for practice work may be obtained at the school, the cost of which, aside from the books, will probably not exceed $5.00.

EXPENSES

The tuition fee in the Library School is $10.00 for the regular first year's course, including the course in Library Work with Children. For this latter course alone the fee will be $5.00.

To those returning for the second year's course in cataloging the tuition will be $5.00 and these students are advised to take one additional course in the University Summer Session.

The additional cost of library material necessary for practice work and the necessary text books, will not exceed $10.00.

There are no dormitories and no commons connected with the University. Clubs may be formed, in which the cost of day board is from $2.00 to $2.50 a week. Room rent varies from 50 cents to $1.50 per week for each student. Boarding and lodging in private houses can be obtained for from $3.00 to $5.00 per week.

Accommodations may be obtained at Wilson Hall, the home for young women, which will be open during the session. Lists of other desirable places will be furnished each student upon application to Miss Harriet A. Wood, Resident Director, University Library, Iowa City.

REGISTRATION

Students on coming to the University should present themselves at the office of the Dean of the Summer Session, Room 217, Hall of Liberal Arts, for registration and assignment to classes.

Students are requested to register before 12 o'clock on Monday, June 22, as the class work will begin at 2 o'clock on that day.

Address all communications regarding the instruction to Miss Alice S. Tyler, Sec'y Iowa Library Commission, Des Moines, Ia.

THE COLLEGE OF LAW

COLLEGE OF LAW

THE FACULTY

GEORGE E. MACLEAN, PH. D., LL. D.,
President.

CHARLES NOBLE GREGORY, M. A., LL. D.,
Dean.

SAMUEL HAYES, M. S., LL. B.,
Resident Professor of Law.

HARRY SANGER RICHARDS, B. PH., LL. B.,
Resident Professor of Law and Secretary of the Faculty.

ELMER ALMY WILCOX, B. A.,
Resident Professor of Law.

EMLIN MCCLAIN, M. A., LL. D.,†
Lecturer on Law.

HORACE EMERSON DEEMER, LL. B.,†
Lecturer on Law.

MARTIN J. WADE, LL. B.,
Lecturer on Law.

SIR FREDERICK POLLOCK, BART, K. C., LL. D.
Corpus Professor of Jurisprudence in the University of Oxford, is expected to deliver a brief course of lectures in the College of Law in October, 1903.

MERTON LEROY FERSON,
Librarian.

†Of the Supreme Court of Iowa.

COLLEGE OF LAW

LENGTH OF COURSE

The College of Law was organized as a department of the University in 1868, the course of study covering one year. In 1884 the General Assembly passed an act requiring two years' study for all candidates for admission to the bar, and the course of study in this department was extended to the same period. By act of the Twenty-eighth General Assembly (see Acts of the Twenty-eighth General Assembly, Chapter 11, Supplement to Code, § 310) the period of study for admission to the bar was extended to three years, and a preliminary education substantially equivalent to a three years' high school course was required. With the view of conforming the course of study in the College of Law to this legislation and qualifying the graduates of the College for admission to the bar, the Board of Regents at its meeting in March, 1900, authorized the extension of the course from two to three years. The extension was made and the class of 1901 was the last class to graduate in the two years' course. The course is now one of three years.

INSTRUCTIONAL STAFF

At present the instruction is in the hands of a dean and three resident professors who devote their entire time to the school, and three lecturers who give extended courses.

REQUIREMENTS FOR ADMISSION

Graduates or matriculates of reputable universities or colleges, or graduates of state normal schools, may be admitted to the first-year class without examination upon presentation of diplomas or certificates showing such graduation or matriculation.

Graduates in the four-year courses of accredited high schools or academies may be admitted to the first-year class

without examination upon presentation of diplomas or proper certificates of graduation.

Graduates of other high schools or academies whose courses of study are approved by the University and are at least three years in length, may be admitted to the first-year class without farther examination upon presentation of certificates signed by the Superintendent or the Principal and containing specific statements as to the amount of work done in each study. Blank certificates will be furnished upon application to the President of the University, or the Dean of the College of Law, or the University Examiner.

Applicants presenting certificates for work not fully meeting the requirements for admission, will be examined on the subjects in which they are deficient.

All other applicants for admission will be required to pass entrance examinations in the subjects named in the programme given below, and prescribed by the supreme court of Iowa for the preliminary examination of applicants for admission to the bar.

PROGRAMME OF ENTRANCE EXAMINATIONS

FIRST SEMESTER

Monday, September 21, to Wednesday, September 23, 1903.

Arithmetic,	1 credit,	Monday,	1:30 P. M.
English and English Grammar,	2 credits*,	Tuesday,	11:00 A. M.
			4:30 P. M.
		Wednesday,	11:00 A. M.
			4:30 P. M.
Geography,	1 credit,	Tuesday,	9:30 A. M.
English History,	1 credit,	Tuesday,	11:00 A. M.
United States History,	1 credit,	Tuesday,	1:30 P. M.
Civics,	1 credit,	Tuesday,	2:30 P. M.
Economics,	1 credit,	Tuesday,	3:30 P. M.
Algebra,	3 credits,	Wednesday,	8:00 A. M.
The Elementary Principles of the Government Land Survey,	1 credit,	Wednesday,	9:00 A. M.
Physics,	2 credits,	Wednesday,	1:30 P. M.

* One preparatory credit is defined as the equivalent of one high school study *five* times a week during a semester at least *eighteen weeks* in length on the basis of *four* studies a day.

Orthography and writing will be judged from the manuscripts presented.

SECOND SEMESTER

Friday, February 12, to Monday, February 15, 1904.

The examinations will be held at the same hours as in the programme above, reading Friday and Monday for Monday and Wednesday, respectively.

For *each separate* examination given at any other time than that announced in the programmes which precede, a fee of *one dollar* will be charged by the University. For a series of examinations covering two or more subjects a fee of *two dollars* will be charged.

Applicants may offer themselves for examination in subjects which are real equivalents of any mentioned in the foregoing programme.

Any person expecting to enter the College of Law is advised to learn before the opening of the semester exactly what entrance examinations he will be required to pass. He can learn this by addressing the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given above.* He should present himself at once at the office of the University examiner, who will give all necessary directions.

Any student displaying marked illiteracy in English may at any time by the rule of the College of Law be required by the faculty to take instruction in English.

Students will find it to their advantage to enter at the beginning of a semester and best to enter at the beginning of the University year.

ADVANCED STANDING

SECOND YEAR

Applicants for admission to second year standing must comply with the conditions hereinbefore set out for candidates for the first year class, and in addition thereto must pass successful examinations in four of the principal subjects of the first year, or their equivalents, namely, Elementary Law, Contracts, Torts, Evidence, Agency, and Criminal Law and Procedure; they must also furnish either a certifi-

cate showing one year's study of law in a reputable law school, or the affidavit of a member of the bar in regular practice, stating that the applicant has pursued a regular course of study of the law in his office for twelve months. Applicants who have already been admitted to the bar in states where an examination is required, may enter upon presentation of certificate showing admission to practice.

THIRD YEAR

Applicants for admission to third year standing must comply with all the conditions hereinbefore set out for candidates for admission to the first year class, and in addition thereto pass satisfactory examinations in four of the principal subjects of the first year course or their equivalents set out under the provisions governing second year standing; also in four of the principal subjects of the second year course, viz.: Bills and Notes, Sales, Wills, Probate Law, Partnership, Corporations, Equity, Equity Pleading, and Real Property, or the equivalents of these subjects; they must also present certificates or affidavits showing two years' study of law as above, one of which must have been in a reputable law school and the other either in a reputable law school or in the office of an attorney in active practice.

Students will not be admitted to classes in advance of their time credits.

Examinations for advanced standing will be held on Tuesday, September 22, 1903, at 9:00 a. m., in the Old Capitol building. They cannot be given at other times.

SPECIAL STUDENTS

Applicants for admission to the College of Law, not candidates for a degree, but desiring to pursue special subjects, will be admitted on complying with the admission requirements governing candidates for degrees, or on showing by a special examination that they are qualified to pursue the subjects desired.

COURSE OF STUDY

The course of study is so arranged that the several classes have separate and distinct courses of study throughout. The elementary courses are grouped in the first year, and the specialized courses in the second and third years, the design being to cover the fundamental subjects of the law and to equip the student for the active practice of the profession.

FIRST YEAR

FIRST SEMESTER

Subject	*Text*	*Instructor*	*Per Week*
Contracts	Keener's Cases on Contracts	Dean Gregory	3 hrs.
Torts	Cooley on Torts	Prof. Hayes	3 hrs.
Elementary Law	McClain's Outlines	Prof. Wilcox	2 hrs.
Code Pleadings and Trial and Judgment	Iowa Code	Prof. Hayes	2 hrs.

SECOND SEMESTER

Evidence	Jones on Evidence	Judge Wade (10 weeks)	5 hrs.
Domestic Relations	Deemer's Outlines	Judge Deemer (5 weeks)	5 hrs.
Agency	Wambaugh's Cases on Agency	Prof. Richards (13 weeks)	5 hrs.
Criminal Law and Procedure	McClain's Outlines of Criminal Law and Proced., or Clark's Crim. Law and Beal's Crim. Proc.	Prof. Wilcox (8 weeks)	5 hrs.

SECOND YEAR

FIRST SEMESTER

Sales	Williston's Cases on Sales	Dean Gregory	2 hrs.
Partnership	Burdick's Cases on Partnership	Prof. Richards	2 hrs.
Corporations	Elliott on Private Corporations (3d Ed.) Lectures on Public Corporations	Prof. Wilcox	3 hrs.
Equity & Equity Pleading	Selected Cases	Prof. Richards	3 hrs.

SECOND SEMESTER

Wills	Chaplin on Wills, Principles with Selected Cases	Dean Gregory	2 hrs.
Trial Procedure	Deemer's Outlines	Judge Deemer (5 weeks)	5 hrs.
Probate Law	Code & Selected Cases	Prof. Richards (13 weeks)	2 hrs.
Bills and Notes		Prof. Wilcox (13 weeks)	3 hrs.
Real Property	Tiffany on Modern Real Property	Prof. Hayes	3 hrs.

THIRD YEAR

FIRST SEMESTER

Carriers	McClain's Cases	Dean Gregory	3 hrs.
Conflict of Laws	Minor's Conflict of Laws	Prof. Hayes	2 hrs.
Trusts	Selected Cases on Trusts	Prof. Richards	3 hrs.
Damages	Beal's Cases on Damages		
Quasi Contracts	Keener on Quasi Contracts	Prof. Wilcox	2 hrs.

SECOND SEMESTER

International Law	Scott's Cases	Dean Gregory	2 hrs.
Constitutional Law & Limitations	McClain's Cases on Constitutional Law	JudgeMcClain (10 weeks)	5 hrs.
Attachment & Garnishment Common Law Pleading Justice Practice	Code of Iowa Perry's Common Law Pleading	Prof. Hayes	3 hrs.
Insurance	Woodruff's Cases on Insurance	Prof. Wilcox (8 weeks)	5 hrs.

MOOT COURTS

For the purpose of affording the student practice in the application of legal principles to statements of fact, moot courts are conducted for a portion of each year in the first and second year classes and in the first semester of the third year and each student is required to conduct or defend causes in these courts. The courts are presided over by members of the faculty. The method and rules of procedure follow those of the trial courts, and the student is given an opportunity to draft pleadings and argue cases under these rules. This feature of instruction is an important one in the College. Students are encouraged to form club courts, and the faculty will aid such clubs in every possible way.

COMBINED LIBERAL ARTS AND LAW COURSE

Students of the College of Liberal Arts who have completed their junior year and are entitled to senior standing at the beginning of the University year may be enrolled in the College of Law and receive credit for one year's time of law study while completing their senior year in the College of Liberal Arts, by complying with the following conditions: They must schedule for five hours a week in the College of Law in the subjects of the first year, given throughout the year at 9 o'clock; and for five hours of prescribed

electives and five hours of free electives in the College of Liberal Arts. The five hours of prescribed electives must be courses in the College of Liberal Arts approved by a joint committee of the College of Liberal Arts and the College of Law from the group of subjects embracing Political and Social Science, including political and institutional history. Students thus scheduled and earning credit for Elements of Jurisprudence, International Law, and Constitutional Law in the College of Liberal Arts are excused from Elementary Law, International Law, and Constitutional Law, except Constitutional Limitations, as given in the College of Law, and the grades made by students in such subjects in the College of Liberal Arts will be accepted as credits in the College of Law. Students of this course must, however, with the exception of the absolute equivalents above enumerated, pass examination in all the subjects of the law course prior to graduation. It is further provided that the student who has gained a time equivalent of ten semester hours by carrying extra work during his second and third years, or by attendance upon summer sessions of the University, may schedule for ten hours of Law and five hours of Liberal Arts subject to the rules of the University governing permission to carry extra work. The ten semester hours of credit allowed in the College of Liberal Arts for work done in the College of Law will be granted only to those who have registered in the Combined Course and conformed to its conditions.

INSTRUCTION IN THE COLLEGE OF LIBERAL ARTS

Law students who desire to take work in the College of Liberal Arts in addition to their regular work in the College of Law without being candidates for a degree in the College of Liberal Arts are allowed to take such work to an extent not exceeding five hours a week as long as they maintain a good standing in their law studies and as long as the work which they undertake in the College of Liberal Arts is done to the satisfaction of the professors in charge. This privilege is also subject to the discretion of the standing joint committee of the College of Law and the College of Liberal Arts. No additional charge is made for this instruction.

EQUIPMENT

The College of Law has the exclusive occupancy of the second floor and one half of the main floor in the Old Capitol Building.

LAW LIBRARY

The Library contains over twelve thousand volumes, comprising a full series of the reports of the Supreme Court of the United States and of the courts of last resort of thirty-seven states, including all the series of reports most frequently referred to; also the American Decisions, American Reports, American State Reports, Lawyers' Reports Annotated, English Ruling Cases, a collection of English Reports which (with additions lately made) is almost complete; full series of the Reporter System, and a large collection of law text-books. Students are allowed personal access to the book stacks.

The library is in charge of a regular librarian, a graduate in Law and Liberal Arts and a member of the bar, with three assistants, who render valuable assistance to the students in the prosecution of their work.

The library room has been greatly improved and enlarged by the removal of partitions and the completion of new galleries. It is open for the use of students from 8 a. m. to 12 m., from 1:30 to 5:30 p. m., and 7 to 9 p. m. of each day except Saturday, and it is open during the forenoon of Saturday.

HAMMOND HISTORICAL LAW COLLECTION

A valuable collection of twelve hundred volumes, many of them rare, relating principally to the Civil Law and History of the Common Law, was presented to the University by the widow of William G. Hammond, LL. D., the first Chancellor of the College of Law, and is kept in the law library as a separate collection. These books are in special cases, under the charge of the law librarian, and are accessible on request.

UNIVERSITY LIBRARY

The University Library, containing over 60,000 volumes, is also open to students of this College, and books may be drawn from it under reasonable regulations.

THESIS

Each candidate for graduation must present to the faculty, on or before the first Monday in April, a thesis upon some legal topic approved by the faculty. Such thesis must be legibly written or printed by typewriter, on paper 8x10½ inches in size, leaving a blank margin of at least one inch at side and at top and bottom. The thesis shall not be less than 1,500 nor more than 2,500 words in length, exclusive of citations of authorities. In citing cases the names of the parties as well as the volume and page of the report must be given. Each thesis must have on the first page thereof the subject of the thesis and the name of the writer.

The character of the thesis will be taken into account in determining whether the candidate is qualified to be recommended to the examining committee for final examination. All theses become the property of the College.

GRADUATION

Three years' study is essential to graduation, at least the last year of which must have been spent in this College. Before being recommended for graduation the candidate must satisfy the faculty of his proficiency in all the prescribed studies of the course by passing examinations therein. If the candidate has pursued a portion of his studies in some other law school, he must pass satisfactory examinations in a sufficient number of the subjects for which credit is asked to satisfy the faculty of his proficiency before being given the credits set out in his certificate. Candidates must be of good moral character. Upon being recommended by the faculty, candidates must pass a final examination conducted at Iowa City by a commission appointed by the Supreme Court of Iowa in accordance with the statutes and rules of the Supreme Court regulating admission to the bar (see Acts Twenty-eighth General Assembly, Chapter 11, Supplement to the Code §310). Upon passing such examination, candidates receive the degree of Bachelor of Laws and are entitled to practice in all the courts in the state of Iowa, oaths of admission being administered in connection with their graduation, and they receive the usual diplomas and certificates

of admission. Candidates are also admitted to practice in the Federal Courts on graduation, the oath being administered at that time. Those who are not twenty-one years of age may pass the examination and receive their diplomas, but cannot be admitted to practice until attaining that age.

Special students or those leaving the school in good standing prior to graduation are entitled to certificates showing the number of semesters spent in attendance at this College and the grades attained in the examinations passed.

LITERARY SOCIETIES

Two literary societies, The Hammond Law Senate, and The Forum, composed exclusively of students of this College, hold regular weekly meetings, furnishing to their members valuable training in debating and in the other exercises usually provided for by such organizations.

TUITION—FEES

The rate of tuition established by the Board of Regents is thirty dollars ($30) per semester of eighteen weeks, payable to the Treasurer of the University. For the combined course in the colleges of Law and Liberal Arts the tuition is fixed at $75 per year of 36 weeks,—$40 for the first semester and $35 for the second semester. It is required by recent action of the Board of Regents that tuitions shall be paid by new students at the time of their matriculation, and by old students at the time of registering for the semester. Tuition must be paid before the student is entitled to any of the privileges of the College. Each student, upon passing his final examination, is required to pay the sum of $7 as a graduation fee to cover the charge for diploma and for certificates of admission to the State and Federal Courts. There are no other fees or charges, except for special examinations.

Law books may be procured through the law librarian from time to time, as needed, at a considerable reduction from list prices. They are not kept for sale by the book stores in Iowa City.

The College of Law owns about twelve sets of the textbooks above mentioned as required in the course, which it

will rent in sets to students, furnishing them all the books required for any year for $10 for the year. The rent sets do not include a law dictionary nor the Law Bulletin. As there are sometimes more calls for rent sets than can be met, those who desire to rent books should make application in advance.

EXPENSES—SELF-SUPPORT

There are no dormitories or commons connected with the University. Boarding and lodging in private houses can be obtained for from $3 to $5 per week. Clubs are formed in which the cost of living is from $1.50 to $2.50 per week.

While it is impossible for the University authorities to guarantee that any student will be able to earn his way through college, yet Iowa City with its eight thousand inhabitants furnishes many opportunities for employment. The Y. M. C. A. has established a free labor bureau which is at the service of students. The association makes a canvass of the city to find work and suitable lodging and boarding places.

For further information apply to George E. MacLean, President of the University, or to Charles Noble Gregory, Dean of the College of Law, State University of Iowa, Iowa City, Iowa.

THE COLLEGE OF MEDICINE

THE COLLEGE OF MEDICINE

FACULTY AND INSTRUCTORS

GEORGE EDWIN MACLEAN, PH. D. LL. D.,
President of the University.

PHILO JUDSON FARNSWORTH, M. A., M. D.,
Emeritus Professor of Materia Medica, and Therapeutics.

JOHN CLINTON SHRADER, M. A., M. D., LL. D.,
Emeritus Professor of Obstetrics, Gynecology, Clinical Gynecology, and Diseases of Children.

LAWRENCE WILLIAM LITTIG, M. A., M. D., M. R. C. S.,
Professor of Theory and Practice of Medicine, and Clinical Medicine.

JAMES RENWICK GUTHRIE, M. A. M. D.,
Dean of the College of Medicine, and Professor of Obstetrics and Gynecology.

ELBERT WILLIAM ROCKWOOD, M. A., M. D.,
Professor of Chemistry and Toxicology.

JAMES WILLIAM DALBEY, B. S., M. D.,
Professor of Ophthalmology.

CHARLES SUMNER CHASE, M. A., M. D.,
Professor of Materia Medica and Therapeutics.

WALTER LAWRENCE BIERRING, M. D.,
Professor of Pathology and Bacteriology.

JOHN WALTER HARRIMAN, M. D.,
Professor of Anatomy.

WILLIAM ROBERT WHITEIS, M. S., M. D.,
Professor of Histology and Embryology.

LEE WALLACE DEAN, M. S., M. D.,
Professor of Otology, and Rhino-Laryingology, and Assistant in the Department of Ophthalmology.

MARTIN J. WADE, LL. B.,
Professor of Medical Jurisprudence.

EMIL LOUIS BOERNER, Pharm. D.,
Professor of Pharmacy.

WM. JEPSON, M. D., L. R. C. P. and S.,
Professor of Surgery and Clinical Surgery.

JOHN THOMAS MCCLINTOCK, A. B., M. D.,
Assistant Professor in Charge of Physiology.

GERSHOM HYDE HILL, M. A., M. D.,
Lecturer on Insanity.

FRANK THOMAS BREENE, D. D. S., M. D.,
Lecturer on Dentistry.

JAMES FREDERICK CLARKE, M. A., M. D.,
Lecturer on Hygiene.

JOHN BLAIR KESSLER, M. D.,
Lecturer on Dermatology.

ELI GRIMES, M. D.,
Lecturer on Electro-Therapeutics.

GEORGE EDWARD DECKER, M. D.,
Lecturer on Pædiatrics.

JENNINGS PRICE CRAWFORD, M. D.,
Lecturer on Surgical Technique.

WILBER JOHN TEETERS, M. S., PH. C.,
Director of the Pharmaceutical Laboratory.

FRANCIS NEWTON BRINK, M. S.,
Instructor in Chemistry.

ALBERTUS JOSEPH BURGE, M. S., M. D.,
Instructor in Physical Diagnosis in the Department of Theory and Practice of Medicine.

LOUIS DELAVAN NILES, B. S., M. D.,
Instructor in Chemistry.

HENRY ALBERT, M. S., M. D.,
Instructor in Pathology and Bacteriology.

FRED. W. BAILEY, B. S.,
Assistant Instructor in Physiology.

ALDEN ROBBINS HOOVER, B. S.,
Assistant Instructor in Histology.

JOHN PATRICK MULLIN, M. D.,
Demonstrator of Anatomy.

ARTHUR HUBERT VANDIVERT, PH. C.,
Fellow in Chemistry.

CHARLES LEONARD SMITH, B. A.,
Scholar in Histology.

CHARLES S. KRAUSE, B. S.,
Scholar in Pathology and Bacteriology.

CHARLES EDWIN LAMBERT, B. S.,
Fellow in Pathology and Bacteriology.

CLARA BEATRICE WHITMORE, B. A.,
Tutor in Medical Latin.

ZADA M. COOPER, Ph. G.,
Assistant in the Pharmacy Laboratory.

HENRY DELEVAN HOLMAN,
Undergraduate Demonstrator of Anatomy.

OSCAR SYLVESTER GRAY,
Undergraduate Demonstrator of Anatomy.

EDWARD ELLSWORTH BLYTHE,
Undergraduate Assistant in Histology.

FREDERICK WARNER BOOTS,
Undergraduate Assistant in Histology.

RALPH L. BYRNES, B. S.,
Undergraduate Assistant in Pathology and Bacteriology.

THE COLLEGE OF MEDICINE

A thorough elementary preparation is required before entering on the course of medical lectures. The University offers a scientific course preparatory to the professional, and it is expected that many will avail themselves of this opportunity. In the branches of medicine there should be a thorough training in principles before the practical portion is begun. For this purpose a careful presentation of the subjects is made by lectures, and the knowledge fixed by recitations and frequent reviews. Ample means of illustration are used, and the materials for demonstration are abundant. In the practical branches abundant clinical material is furnished to illustrate the subjects taught.

Medical, surgical, gynecological, ophthalmological, dermatological, otological, and rhino-laryngological clinics are held each week during the term. Attendance upon these is required of all students, exepting those engaged in laboratory work during clinic hours.

The thirty-fourth annual course of lectures will begin on September 24, 1903, and will close on June 12, 1904.

The course extends through four years of thirty-six weeks each. The session is divided into two semesters of eighteen weeks, and the semester into two terms of nine weeks each.

BUILDINGS

The losses resulting from the fire of March, 1901, have been so far repaired that the college will be able to carry on its work effectively until the erection of its new buildings. By means of an appropriation from the emergency fund of the state it was possible to proceed with the immediate collection of material and the construction of a temporary structure. Several members of the faculty spent the summer in Europe, procuring in this way the most modern apparatus and other materials necessary for lecture and laboratory demonstration. For the laboratories enough microscopes were

purchased to replace those destroyed, as well as other apparatus for the microscopic and the physiological laboratories. The college was exceedingly fortunate in being able to obtain from similar institutions of England, Austria, France, and Germany a complete collection, representing all varieties of normal and pathological growths and tissues. A full outfit was also procured for teaching topographical and surgical applied anatomy, including models, skeletons, and other natural specimens.

The dissecting room occupies the whole of the basement of the building which was erected on the old site. On the first floor are a large amphitheatre seating 275 and a lecture-room accommodating 175. Besides these there are a number of rooms used for preparation, storage, etc. The histological and pathological laboratories are on the lower floor of the new fire-proof Hall of Liberal Arts. The physiological laboratory occupies the whole of the building formerly used by the departments of psychology and pedagogy.

THE PATHOLOGICAL MUSEUM

By personal visits to the pathological institutes of the larger European centers, the contributions of professional friends, and specimens derived from the University clinics and autopsies, the founding of the new pathological museum has made rapid and gratifying progress.

The museum at present possesses a very valuable and varied collection of preparations, especially adapted for illustration of the different pathological conditions. Physicians are earnestly requested to send to the Curator of the Museum, Professor W. L. Bierring, any specimens of healthy, morbid or comparative anatomy. For all such favors credit will be given by labeling the specimens with the name of the donor before placing them in the museum. Acknowledgement will also be made in the annual announcement. The following interesting contributions have been received during the past year:

Myoma uteri	Dr. Wm. Moerschel, Homestead, Iowa
Cystoma ovari	Dr. J. P. Crawford, Davenport, Iowa
Sarcoma of the kidney	Dr. R. E. Robinson, Frederica, Iowa
Tuberculosis of the lungs	Independence State Hospital
Pneumonic lungs	Independence State Hospital

Brain (thrombus in middle cerebral artery)	Dr. L. W. Littig, Iowa City, Iowa
Carcinoma uteri,	Dr. J. R. Guthrie, Dubuque, Iowa
Tuberculosis of the peritoneum (bovine)	Dr. F. H. P. Edwards, V. S., Iowa City, Ia.
Carcinoma of the stomach, with perforation	Dr. J. G. Mueller, Iowa City, Iowa
Tuberculosis of the intestine	Independence State Hospital
Arterio-sclerosis of the aorta	Independence State Hospital
Foetus (death due to intra-uterine constriction of the cord)	Dr. J. P. Mullin, Iowa City, Iowa
Tuberculosis of the spleen (bovine)	Dr. Morse, U. S. Meat Inspector, Des Moines, Iowa
Tuberculosis of the spleen(swine)	Dr. Morse, U. S. Meat Inspector, Des Moines, Iowa
Tuberculosis of the bone and joints (swine)	Dr. Morse, U. S. Meat Inspector, Des Moines, Iowa
Tuberculosis of the liver (swine)	Dr. Morse, U. S. Meat Inspector, Des Moines, Iowa
Tuberculosis of the mammary gland (swine)	Dr. Morse, U. S. Meat Inspector, Des Moines, Iowa
Tuberculosis of the mammary gland (bovine)	Dr. Morse, U. S. Meat Inspector, Des Moines, Iowa.
Tuberculosis of the peritoneum (bovine)	Dr. Morse, U. S. Meat Inspector, Des Moines, Iowa
Carcinoma uteri	Dr. J. B. Kessler, Iowa City, Iowa
Gangrene of the foot (result of freezing)	Dr. Wm. Jepson, Sioux City, Iowa
Gangrene of the foot (arterio-sclerotic)	Dr. Wm. Jepson, Sioux City, Iowa
Epithelioma inferioris labii	Dr. J. Harlan Wells, Wisconsin
Foetus	Dr. J. Harlan Wells, Wisconsin
Five foetuses of different ages	Dr. Charles A. Hurd, Northwood, Iowa
Sarcoma of the kidney	Dr. L. W. Littig, Iowa City, Iowa
Carcinoma of the stomach	Dr. L. W. Littig, Iowa City, Iowa
Cystic fibro-myoma of ovary	Dr. L. W. Littig, Iowa City, Iowa
Tuberculosis of lungs	Independence State Hospital
Tuberculosis of intestine	Independence State Hospital
Submucous uterine polyp	Independence State Hospital
Kidney (acute parenchymatous nephritis)	Independence State Hospital
Kidney (chronic interstitial nephritis)	Independence State Hospital
Kidney (with foetal lobulation)	Independence State Hospital
Liver (fatty infiltration)	Independence State Hospital
Spleen (amyloid degeneration)	Independence State Hospital
Colon (membraneous colitis)	Independence State Hospital

Arterio-sclerosis of heart and aorta	Independence State Hospital
Biliary calculus (size of large hen-egg)	Dr. Ira D. Payne, Linden, Iowa
Tania solium (65 feet long)	Dr. Ira D. Payne, Linden, Iowa
Heart (hypertrophic) with pericarditis	Dr. Geo. Boody. Clarinda, Iowa
Fallopian tube (opening into sigmoid flexure)	Dr. Wm. Jepson, Sioux City, Iowa
Thyroid gland (from case of exopthalmic goitre)	Dr. Wm. Jepson, Sioux City, Iowa
Carcinoma mammae	Dr. J. P. Crawford, Davenport, Iowa
Cystoma (gelatinous) of the ovary	Dr. J. P. Crawford, Davenport, Iowa
Carcinoma (metastatic) of the liver	Dr. C. H. Hermann, Amana, Iowa Dr. Wm. Moerschel, Homestead, Iowa
Chronic interstitial nephritis (secondary contracted kidney)	Dr. J. G. Mueller, Iowa City, Iowa
Melanotic sarcoma of the choroid (eye in special mounting)	Dr. A. W. Elmer, Davenport, Iowa
Eggs of Anchylostomum duodenale	Dr. S. A. Maxwell, U. S. A., Ft. Grant Wilcox, Ariz.
Lipoma, abdominal wall	Dr. J. P. Crawford, Davenport, Iowa
Multiple periosteal sarcoma of the cranium	Dr. C. B. Kimball, West Liberty, Iowa
Enlarged hemolymph glands	Dr. C. B. Kimball, West Liberty, Iowa
Gall bladder, chronic cholecystitis with gall stones	Dr. L. W. Littig, Iowa City, Iowa
Appendix vermiformis, acute ulcerative appendicitis	Dr. J. W. Harriman, Iowa City, Iowa
Appendix vermiformis, chronic interstitial appendicitis	Dr. J. W. Harriman, Iowa City, Iowa
Taenia (unusual form, not yet classified)	Dr. Christen J. Christensen, Jewell, Iowa

REQUIREMENTS FOR ADMISSION

1. Each applicant for admission must present to the Secretary of the Faculty a satisfactory certificate of good moral character, signed by two physicians of good standing in the state from which he comes.

2. The following classes of applicants may be admitted without examination:

a. Graduates or matriculates of reputable universities or colleges who present diplomas or certificates of honorable

dismissal from such universities or colleges, together with a special certificate that they have studied Latin at least one year.

b. Graduates of normal schools established by state authority who present diplomas or certificates of graduation, together with a special certificate that they have studied Latin at least one year.

c. Graduates of accredited or other approved secondary schools who present *thirty* (30) preparatory credits, including at least one year of Latin. *One preparatory credit is defined as the equivalent of one high school study five days a week during a semester at least eighteen weeks in length, on the basis of four studies a day.* These preparatory credits must be properly certified by the Superintendent or the Principal of the school from which the applicant comes, on the blank form inserted in this Announcement or on a similar blank which can be obtained by addressing the President of the University, or the University Examiner.

3. Applicants who present *twenty-eight* (*28*) preparatory credits properly certified (as indicated under 2 c) may be admitted without examination, *on condition that they complete their preparation within one year from the date of their admission.* No applicant whose deficiencies exceed *two* (*2*) preparatory credits will be admitted as a candidate for graduation.

4. In September, 1903, applicants who do not present credentials as described above will be admitted without conditions only upon passing examinations in the following preparatory subjects.

a.	Latin (one year)	2 credits
b.	English and Literature	4 credits
c.	History (one year)	2 credits
d.	Civil Government	1 credit
e.	Arithmatic	1 credit
f.	Algebra, through quadratics	3 credits
g.	Plane and Solid Geometry	3 credits
h.	Physics (one year)	2 credits
i.	Botany, or some other science	1 credit

5. The applicant who passes examinations in all of the subjects enumerated under 4, except such as stand for a total

of *two* preparatory credits, may be admitted *on the condition stated in paragraph 3.*

6. Applicants who present proper *certificates* covering all or any part of the preparatory studies designated under 4 for examination, may be admitted upon passing examinations in enough *other* preparatory studies to bring the number of their preparatory credits up to at least *twenty-eight (28) on the condition stated in paragraph 3.*

7. All applicants who are admitted without Latin will be required to take the one-year course in Medical Latin specially provided by the University, the fee being $5.00 for the course. This course is not a part of the regular course in medicine, but is offered as a convenience for such applicants for admission as have not studied Latin. The class in this course will be organized on Monday, October 5, 1903. Students who take this course are required to pay the fee at the time when they pay the first installment of their regular tuition fee.

8. Students who enter with conditions in *other* preparatory studies than Latin must pass the regular entrance examinations in these studies either in February or in September, 1904.

9. Students entering from other colleges of medicine with advanced standing must present credentials for preparatory work or be examined as stated above.

10. It is urged that any one expecting to enter the College of Medicine next September send all certificates of preparatory work to the University Examiner *as early in the summer as possible, and certainly before September 1.* If the credentials are satisfactory a card of admission will be sent to the applicant at once. Upon arriving in the city he should present this card to the Dean, or to the Secretary of the Faculty, for signature.

ENTRANCE EXAMINATIONS

Any person expecting to enter the College of Medicine in September, 1903, should be careful to learn before the opening of the University exactly what entrance examinations he will be required to pass. He can learn this by addressing the President of the University, the Secretary of the

Faculty of the College of Medicine, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given below.* He should present himself at once at the office of the University Examiner, who will give him all necessary directions.

For *each separate* examination given at any other time than that announced in the following programme, a fee of *one dollar* will be charged by the University. For a series of two or more examinations a fee of *two dollars* will be charged.

PROGRAMME OF ENTRANCE EXAMINATIONS

MONDAY, SEPTEMBER 21, TO WEDNESDAY, SEPTEMBER 23, 1903.

Arithmetic,	1 credit,	Monday,	1:30 P. M.
Latin,	2 credits,	Monday,	3:30 P. M.
English and English Grammar	2 credits,	Tues., 11:00 A. M., 4:30 P. M. Wed., 11:00 A. M., 4:30 P. M.	
Literature,	2 credits,	Tuesday,	8:00 A. M.
*General History,	2 credits,	Tuesday,	9:30 A. M.
*English History,	1 credit,	Tuesday,	11:00 A. M.
*United States History,	1 credit,	Tuesday,	1:30 P. M.
Civil Government,	1 credit,	Tuesday,	2:30 P. M.
Algebra,	3 credits,	Wednesday,	8:00 A. M.
Plane and Solid Geometry,	3 credits.	Wednesday,	9:30 A. M.
Physics,	2 credits,	Wednesday,	1:30 P. M.
Botany,	1 credit,	Wednesday,	3:00 P. M.

All students having deficiencies in their medical work will appear for examination according to the following schedule:

WEDNESDAY, SEPTEMBER 23.

Histology,	8:00 A. M.
Physiology,	10:00 A. M.
Pathology,	10:00 A. M.

*The applicant may elect either *General History*, 2 credits, or English History and United States History, one credit each.

Anatomy,	11:00 A. M.
Materia Medica,	3:00 P. M.
Chemistry,	4:00 P. M.

COMBINED COURSES

Arrangements have been made with the Faculty of the College of Liberal Arts by which it will be possible for a student to receive credit in one college for work done in the other, thereby obtaining a degree in each in a shorter time than if the two courses were taken independently. These combined courses are especially recommended to all students who intend to enter the profession of medicine.

REQUIREMENTS FOR ADMISSION TO THE COMBINED COURSE LEADING TO THE DEGREES B. A. AND M. D., OR B. PH. AND M. D.

1.	Latin, or Modern Languages,*	8 credits
2.	English and Literature,	8 credits
3.	History (may include Civics),	4 credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 credits
5.	Plane and Solid Geometry,	3 credits
6.	Science,	2 credits
7.	Greek or Electives (*additional* accreditable work in foreign language, English, History, or Science),	2 credits
	Total,	30 credits

REQUIREMENTS FOR ADMISSION TO THE COMBINED COURSE LEADING TO THE DEGREES B. S. AND M. D.

1.	Some one foreign language (Latin preferred,† but German or French accepted),	4 credits
2.	English and Literature,	8 credits
3.	History (may include Civics),	4 credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 credits

5.	Plane and Solid Geometry,	3 credits
6.	Science,	2 credits
7.	Electives (*additional* accreditable work in foreign language, English, History, or Science),	6 credits
	Total,	30 credits

For a detailed statement of the requirements for admission, see the latest Announcement of the College of Liberal Arts.

COMBINED COURSE LEADING TO THE DEGREES OF B. S. AND M. D.

First Year

German—5
Mathematics—5
Drawing—3
English—2
Military Drill—3

Second Year

German—3
English—2
Physics—5
Zoology—5
Animal Physiology—2
Military Drill—3

Third Year

Botany—5
Chemistry—5
Animal Morphology—5
Military Drill—3

Fourth, Fifth, and Sixth Years

Medical work exclusively

Seventh Year

French, 10 semester hours.
Elective, in College of Liberal Arts, 10 semester hours.

It is possible for students of marked ability to complete this course in six years by taking one year's work in French and one year's work in an elective in the College of Liberal

*Either four years of Latin, or two years in each of two modern languages, will be accepted. But those who do not present at least *one year* of Latin will be required to take the one-year course in Medical Latin at the University.

†If one year of Latin is not included in the preparatory work it must be made up at the University.

Arts, in addition to the medical work, in the fifth and sixth years of the combined course or wherever it is practicable. Both degrees will be conferred at the end of the sixth year if the work has been completed, and to obtain them it must be taken as here outlined, no substitutions being permitted.

COMBINED COURSE LEADING TO THE DEGREES OF B. PH. AND M. D., OR B. A. AND M. D.

By selection of the above scientific branches as electives in the courses leading to the degrees of B. Ph. or B. A. in the College of Liberal Ars it will be possible to obtain either of these degrees with that of M. D. in seven years. For the details of these courses the announcement of that College should be consulted,

COMBINED COURSE LEADING TO THE DEGREES OF M. D. AND D. D. S.

By arrangement with the Dental Faculty students can obtain the degrees of Doctor of Medicine and Doctor of Dental Surgery by taking four years in the College of Medicine, and after that two years in the College of Dentistry. The work is not so arranged that the dental branches can be taken first. The requirements for admission are the same as those of the College of Medicine.

ADVANCED STANDING

In all cases those who enter from other schools with advanced standing must comply with the requirements for admission.

Students from other accredited medical colleges who have attended one course of lectures will be admitted to the sophomore class upon passing an examination in the branches taught during the first year.

Those who have attended two courses will be admitted to the junior class upon passing an examination in the branches taught during the first and second years.

Those who have attended three courses will be admitted to the senior class upon passing an examination in the

branches taught during the first, second, and third years. At least 34 weeks of study must have been included in each annual course.

Graduates from colleges in good standing, who, during their college course, have devoted regular time to the study of the following branches: Biology, Botany, Chemistry, Physics, Histology, Physiology, and Human Anatomy, may be admitted to the second year of the medical course.

The number of hours following has been adopted as covering the above requirements:

	DIDACTIC	LABORATORY
General Biology with Physiology, especially the physiology of circulation, respiration, nerve and muscle, excretion,	180	
Botany, collegiate grade,	72	
Mammalian Anatony with comparative anatomy (human),	60	60
Zoology, not including Anatomy,	120	120
Chemistry, non-metallic, metallic, and organic, including stochiometry,	100	200
Physics,	180	
Histology,		
Of cells and tissue,	32	48
Digestive tract, accessory glands, etc.,	22	33
Respiratory tract, skin, and nervous system,	36	72
Also genito-urinary histology,	—	—
Embryology,	60	(including laboratory).

An opportunity will be given at this College for making up the human dissection of the freshman year.

Graduates from literary or scientific colleges having premedical courses which have been approved by this faculty will be admitted to the sophomore class upon the presentation of certificates of graduation from such courses. All others should present specific statements of the work completed before graduation with the above as the minimum amount.

Colleges now having such courses or announcing the intention of establishing them are:

Augustana College, Ill.;	Iowa College;
Coe College;	Simpson College;
Des Moines College;	Western College.

Students entering under these conditions at the end of their first session must pass examinations in all branches of the freshman year not previously pursued by them.

OUTLINE OF THE PLAN OF INSTRUCTION

DEPARTMENT OF ANATOMY

PROFESSOR HARRIMAN; DR. MULLIN, MR. HOLMAN, MR. GRAY.

Anatomy is taught by means of lectures, conferences, recitations, and demonstrations, and by practical work in the laboratories.

Lectures are illustrated by charts, models, blackboard figures, wet and dry specimens, and recent dissections of the human body. A complete assortment of disarticulated human bones is loaned to each student at the beginning of the year. The laboratory of practical anatomy occupies the basement of the Medical Building. Recent legislative enactment provides ample material for dissection.

1. OSTEOLOGY—A course in the anatomy of the human skeleton by means of lectures, recitations, and demonstrations. Four hours each week during first semester, freshman year. Professor HARRIMAN.

2. ARTHROLOGY, MYOLOGY, AND ANGIOLOGY—A course in the anatomy of joints, muscles, arteries, veins, and lymphatics, by lectures, recitations, and demonstrations upon the dissected human body. Four hours each week during first term of second semester, freshman year. Professor HARRIMAN.

3. SPLANCHNOLOGY—A course in the anatomy of the viscera and allied structures, by means of lectures, recitations, and demonstrations upon dissected bodies and wet specimens. Four hours each week during second term of second semester, freshman year. Professor HARRIMAN.

4. PRACTICAL ANATOMY—A course in the dissection of the human body. Ten hours each week during first term of

second semester, freshman year, 3:30 to 5:30 p. m. daily, except Saturday. Dr. MULLIN, Mr. HOLMAN, Mr. GRAY.

5. OSTEOLOGY, ARTHROLOGY, MYOLOGY, AND ANGIOLOGY—A course consisting wholly of recitations upon subjects taken up during the freshman year. Four hours each week during first term of first semester, sophomore year. Professor HARRIMAN.

6. PRACTICAL ANATOMY—A course in the dissection of the human body. Ten hours each week during second term of first semester, sophomore year, 3:30 to 5:30 p. m. daily, except Saturday. Dr. MULLIN, Mr. HOLMAN, Mr. GRAY.

7. SPLANCHNOLGY—A lecture, demonstration, and recitation course in the anatomy of the viscera of the trunk and genito-urinary organs. Four hours each week during second term of first semester, sophomore year. Prefessor HARRIMAN.

8. NEUROLOGY AND ORGANS OF SPECIAL SENSE—A didactic, recitation, and conference course in the anatomy of the cerebro-spinal nervous system and organs pertaining to the special senses. Four hours each week during first term of second semester, sophomore year. Professor HARRIMAN.

9. APPLIED ANATOMY — A didactic, recitation, and demonstration course on the anatomy of important regions, with special reference to its application in medical and surgical diagnosis. Three hours each week during second term of second semester, sophomore year. Professor HARRIMAN.

10. SURGICAL ANATOMY—A lecture and recitation course on anatomy as applied to surgery. One hour each week during second semester, junior year. (Elective). Professor HARRIMAN.

DEPARTMENT OF PHYSIOLOGY

DR. MCCLINTOCK; MR. BAILEY

The department of Physiology occupies a suite of rooms which includes a laboratory of experimental physiology and a room for animals. The latter is so arranged that frogs,

turtles, rabbits, etc., can be kept throughout the whole year under suitable conditions. The room is supplied with separate compartments so that animals which are being experimented upon can be kept by themselves and observed.

The laboratory is fully equipped with apparatus and chemicals for use in experimental work, and new apparatus is being continually added. The outfit includes myographs, chronographs, various forms of electric batteries, galvanometers, kymographs, stethometers, sphygomographs, hemoglobinometers, cardiographs, ophthalmoscopes and retinoscopes.

The course in Physiology is graded in the first and second years.

In the first year the students hear the lectures and attend recitations. The lectures are abundantly illustrated by charts and by experiments upon the living animal and upon the human subject. These lectures cover the subject of biology and the proximate analysis of the human body, the fundamental laws governing life, a study of the fundamental physiological processes in the body, and a study of the nutritive media, the lymph, chyle, and blood, with a study of circulation, respiration, secretion, and excretions, digestion, and absorption.

In the second year the work includes lectures upon nerve and muscle physiology, the electrical phenomena of the body, the physiology of the central nervous system, the physiology of the eye, ear, the nose, the larynx, and of reproduction. In addition to the lectures and recitations, the student does practical experimental work in the laboratory. For this the class is divided into sections, and each section works under the immediate supervision of the professor or instructor in Physiology. The physiological laboratory is open from nine o'clock in the morning until six o'clock in the evening, and, as the instructor is always present, the student can work as much time outside of his regular hours as he cares to. The student is made familiar with the various apparatus and physiological instruments and their uses and is also taught the methods of experimentation. He is supplied with living animals, and upon these studies the physiological activity of the various parts and the organs under normal and abnormal conditions, being required to keep an accurate record

of his experiments. In this course the student also studies models of the eye and ear, and performs a number of experiments with the Kuehne artificial eye, observing how it can be converted into a myopic, hyperopic, emmetropic, or astigmatic eye. Each student is supplied with an ophthalmoscope and retinoscope and he learns to use these instruments upon the human eye as well as upon artificial eyes. Each student is required to complete at least fifty different physiological experiments.

In the third year a course of ten lectures upon the application of physiological methods commonly used in the practice of medicine is given. This course is designed to give the student a practical knowledge of physiological instruments and methods commonly used in practice of medicine. An optional laboratory method is given to the students of the third year, in connection with this course.

1. ELEMENTARY PHYSIOLOGY — Lectures, recitations, and demonstrations dealing with the physiology of the animal and plant cell, the fundamental properties of protoplasm, and the proximate principles of the animal body. Three hours a week, first term, first semester, freshman year. Dr. MCCLINTOCK.

2. SYSTEMATIC PHYSIOLOGY—Lectures, recitations, and demonstrations. This course includes the physiology of blood, circulation, respiration, and the lymphatic system. Three hours a week, second term, first semester, freshman year. Dr. MCCLINTOCK.

3. PHYSIOLOGY OF SECRETION—Lectures, recitations, and demonstrations dealing with the physiology of secretion. Both the external and the internal secretions are studied. The changes in the secretory cells and the nervous mechanism governing the secretions are investigated. The course includes a discussion of the physiology of the kidney, skin, ductless glands, and other glands in the body. Three hours a week, first term, second semester, freshman year. Dr. MCCLINTOCK.

4. PHYSIOLOGY OF DIGESTION — Lectures, recitations, and demonstrations. This course includes a study of the various digestive juices and their activities, the nervous

mechanism governing the digestive organs, the absorption of food-stuffs, and body metabolism. Three hours a week, second term, second semester, freshman year. Dr. McCLINTOCK.

5. PHYSIOLOGY OF MUSCLE AND NERVE—Lectures, recitations, and demonstrations. This course includes a study of the activity of muscle and nerve under normal and abnormal conditions and the electrical disturbances in muscle and nerve. Three hours a week, first term, first semester, sophomore year. Dr. McCLINTOCK.

6. GENERAL PHYSIOLOGY OF THE CENTRAL NERVOUS SYSTEM—Lectures, recitations, and demonstrations. This course includes the physiology of the spinal cord, sympathetic system, and the peripheral nerves. Three hours a week, second term, first semester, sophomore year. Dr. McCLINTOCK.

7. PHYSIOLOGY OF THE BRAIN AND CRANIAL NERVES—Lectures, recitations, and demonstrations. Three hours a week, first term, second semester, sophomore year. Dr. McCLINTOCK.

8. PHYSIOLOGY OF THE SENSES—Eye, ear, taste, smell, cutaneous and muscular sensations. Lectures, recitations, and demonstrations. Three hours a week, fourth term of the sophomore year. Dr. McCLINTOCK.

9. EXPERIMENTAL PHYSIOLOGY—Laboratory work and demonstrations. This course includes a study of physiological apparatus and its uses. Experiments to demonstrate the functions of the muscular, nervous, respiratory, circulatory, and digestive systems, and on the eye and ear, are performed by the students on frogs, turtles, rabbits, pigeons, dogs, etc.

The class is divided into sections. Fifty-four hours during the sophomore year for each section. Dr. McCLINTOCK, Mr. BAILEY.

10. APPLIED PHYSIOLOGICAL METHODS—Lectures, and recitations. This course includes a study of the ophthalmoscope, retinoscope, sphygmograph, manometer, and their use in practice of medicine.

Lecture one hour a week, first term, second semester, junior year. Fifteen hours optional laboratory work is given in connection with this course. Dr. McCLINTOCK, Mr. BAILEY.

11. ADVANCED PRACTICAL PHYSIOLOGY—Elective. This course is open to students who have completed courses 1 to 10, inclusive. The student may select any subject in Physiology and do advanced work. He will be supplied with animals and apparatus for this work. Nine hours a week, during senior year. Dr. McCLINTOCK, Mr. BAILEY.

DEPARTMENT OF CHEMISTRY AND TOXICOLOGY

The lectures in Chemistry are delivered in the Medical Building. The work in Practical Chemistry is conducted in the Chemical Building of the University in which the College of Medicine occupies rooms on the ground floor. These consist of rooms for the instructors, storerooms, and two large laboratories. They are well lighted, and are heated by steam. Ventilating shafts remove offensive and injurious gases. The outfit is ample for demonstrating the general principles of Chemistry, as well as its application to medicine. Each student is supplied free of charge with a set of the necessary apparatus, being obliged to pay only for that which is injured or destroyed.

The course in Chemistry is designed, first, to give the student a thorough knowledge in fundamental principles, then to assist him in applying these to the problems which he will meet in the practice of his profession. The lectures are fully illustrated by experiments.

1. CHEMISTRY OF THE NON-METALLIC ELEMENTS—Lectures and recitations. Freshman year, first semester. Three hours each week.

2. CHEMISTRY OF THE METALS AND THEIR COMPOUNDS—Lectures and recitations. Freshman year, second semester, first term. Three hours each week.

3. ORGANIC CHEMISTRY — Lectures and recitations. Freshman year, second semester, second term. Three hours each week.

4. QUALITATIVE ANALYSIS—A laboratory course. It includes, first, the methods of testiug for the metallic poisons;

then the common medicinal compounds are studied. The student learns the methods of chemical manipulation and the use of apparatus, and also becomes acquainted with the action of reagents and of the common chemicals upon each other. The course includes the chemical examination of water from a sanitary standpoint, each student making a number of analyses of various wholesome and polluted waters. Freshman year, first semester, and first term of second semester. Six hours each week.

5. VOLUMETRIC ANALYSIS—A laboratory course. Volumetric methods of quantitative analysis are especially adapted to the needs of the physician because of the rapidity and ease with which they can be executed. The principal ones are taught and the student is given enough practice to familiarize him with them. Freshman year, second semester, second term. Six hours each week.

6. PHYSIOLOGICAL CHEMISTRY—Lectures and recitations. The lectures are in explanation and amplification of the laboratory work. They include the study of the proximate principles of the body and their chemical changes, also foods and digestion, blood, milk, urine, fermentation, and bacterial products. Sophomore year, first semester, and first term of second semester, two hours each week, and second term, one hour each week.

7. GENERAL PHYSIOLOGICAL CHEMISTRY—A laboratory course. The proximate principles of the body and food materials are prepared by the student and their properties and chemical changes are studied. Experiments in artificial digestion are made, their products being isolated and examined. The constituents of the blood are tested chemically and spectroscopically. Sophomore year, first semester. Two hours each week.

8. APPLIED PHYSIOLOGICAL CHEMISTRY — A laboratory course. The modern methods of Physiological Chemistry are here used in solving problems which arise in the practice of medicine. These include such as the analysis of the gastric juice, quantitative tests being made where they are valuable for diagnostic purposes; the qualitative tests for the abnormal constituents of the urine, with the quantitative determination of such as are of importance; the identification

of urinary sediments, of calculi, and of blood stains. Each student makes a complete examination of a large number of each of these, handing in written reports for correction and suggestions. Sophomore year, second semester. Two hours each week.

DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY

PROFESSOR WHITEIS; MR. HOOVER, MR. BLYTHE, MR. BOOTS

The Histological Laboratory occupies rooms in the College of Liberal Arts. There are laboratories for class work and for special work. The department is furnished with fifty-five compound microscopes and a number of dissecting microscopes. Among the other equipment may be mentioned several microtomes for brain sections, celloidin work, and paraffin work; incubators and in injection apparatus; also the reagents and appliances usually found in a well-furnished histological and embryological laboratory.

1. THE HISTOLOGY OF CELLS AND TISSUES—The first work of the course is on the structure and manipulation of the microscope. It is followed by a consideration of the classification and action of stains. Cell structure, as seen in the simpler forms of plant and animal cells, is first studied, then the more highly differentiated animal cells. After this the histology of the animal tissues is taken up. Freshman year, first semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

2. THE HISTOLOGY OF THE DIGESTIVE TRACT, GENITO-URINARY TRACT, AND RESPIRATORY TRACT—Freshman year, first semester, second term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

3. THE HISTOLOGY OF THE SKIN AND NERVOUS SYSTEM —Freshman year, second semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

4. EMBRYOLOGY AND BIOLOGY — The embryos of the chick, the frog, and some mammal will be studied, in addition to the lower forms of animal life. Freshman year, second semester, second term.

One lecture and one recitation each week. Professor WHITEIS.

Laboratory work, two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

5. LABORATORY TECHNIQUE—An optional course. Freshman year, second semester, second term. Two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

6. ADVANCED WORK FOR A DEGREE IN THE GRADUATE COLLEGE—As a prerequisite to advanced work in this department the student will be required to possess a good working knowledge of both the methods and the subject matter of general histology and embryology. He will be assigned a private laboratory and offered such opportunities as the general laboratory and library afford. The department will supply the necessary materials in the way of tissues and reagents.

Two courses are offered as follows:

I. *The Eye*—The histology of its tissues, considered in relation to both their phylogenetic and their ontogenetic development. The structure and development of the retina will be specially studied.

II. *The Ear*—The investigation will proceed along the same lines as in the preceding course.

Throughout the year, hours to be arranged. Professor WHITEIS.

DEPARTMENT OF MATERIA MEDICA AND THERAPEUTICS

PROFESSOR CHASE; PROFESSOR BOERNER, PROFESSOR TEETERS, DR. GRIMES, MISS WHITMORE, MISS COOPER

1. INORGANIC MATERIA MEDICA—The course is introduced by definitions, and a discussion of routes and modes of administering drugs, dosage, classification of official preparations, and prescription-writing, including the subject of incompatibilities. Following such general topics inorganic drugs are taken up in a natural order of grouping. Sophomore year, first semester. Two lectures and one recitation each week. Professor CHASE.

2. ORGANIC MATERIA MEDICA—Drugs both of vegetable and of animal origin will be considered. As before they will be grouped with reference to some dominant or characteristic action. Thus are grouped together drugs affecting the nervous system, the heart, and circulatory system, the respiration, etc. Toward the close of the year a general review is given. Sophomore year, second semester. Two lectures and one recitation each week. Professor CHASE.

3. THERAPEUTICS—General Therapeutics is presented at the outset by means of such subjects as pneumotherapy, hydrotherapy, balneotherapy, climato-therapy, psychotherapy, hypnotism, suggestion, heat and cold, light and darkness, and other general therapeutic measures more or less mechanical. Junior year, first semester, first term. Two lectures and one recitation each week. Professor CHASE.

4. THERAPEUTICS—Following the preceding course drugs of a general nature or such as affect the tissues of the body generally, and drugs which affect particular organized systems, are presented separately: for example, those used to stimulate or depress the heart, to modify nutrition, or those which act upon the nervous system. Junior year, first semester, second term. Two lectures and one recitation each week. Professor CHASE.

5. THERAPEUTICS—The preceding course is followed by a discussion of local remedies; that is, remedies acting upon

mucous membranes to stimulate their functional activity. Prescription writing will be given careful attention throughout the year, the aim being to illustrate each drug with one or more practical prescriptions and to discuss briefly its mode of administration. Junior year, second semester. Two lectures and one recitation each week. Professor CHASE.

6. EXPERIMENTAL PHARMACOLOGY — During both semesters of the junior year a practical course is given, illustrating the action of the more important drugs upon the inferior animals.

7. THEORY AND PRACTICE OF PHARMACY—A lecture course. The history of the pharmacopœia will be discussed, also metrology, with special attention to the metric system. The processes used in pharmacy which are of especial interest to the medical student will be considered, such as solution, clarification, percolation, the determination of specific gravity, the preparation of emulsions, suppositories, cachets, tablet-triturates, etc. The prescription from the pharmaceutical standpoint will receive careful attention. Freshman year, second semester. One hour each week. Professor BOERNER.

8. PHARMACEUTICAL PREPARATIONS—A laboratory course. The satisfactory production of twenty-five preparations, embracing the various classes of the U. S. Pharmacopœia, National Formulary, etc., also work in filling prescriptions illustrative of chemical and pharmaceutical incompatibility is required. Sophomore year, first semester, first term. Forty-eight hours. Professor BOERNER, Professor TEETERS, Miss COOPER.

9. MEDICAL LATIN—Those who have had but little opportunity to study Latin previous to entering upon their medical work will be afforded an opportunity in this course for special drill with the view to acquiring such a knowledge as must be in the possession of the accurate prescription-writer. It includes the work outlined in Crothers and Bice's *Elements of Latin*, and, in connection with this, work on prescription-writing. In the first semester the grammar is studied, including the two independent sets of exercises upon each chapter. These are especially designed to present those principles of Latin etymology and construction which are essential to an intelligent use of the terminology

of pharmacy and medicine. In the second semester the study of the grammar is continued, special attention being given to the pharmacopœial nouns and anatomical terms. The prescription is taken up, its definition, analysis, formulæ, form, grammatical construction, language, and synthesis being studied. A review of the entire work completes the course. Throughout the year. Two hours each week. Miss WHITMORE.

10. ELECTROTHERAPEUTICS AND MASSAGE—The construction and manipulation of the various forms of apparatus are first considered and the practical workings of batteries and their accessories are demonstrated. The fundamental laws of electricity are given briefly, those of use to the student and practitioner being emphasized. The consideration of the currents in common use follows, with their differences and measurements. This includes galvanic, induced, alternating, and interrupted currents, also the choice of currents for different purposes, as the cautery, electrolysis, cataphoresis, etc. The physiological effect of the current, its therapeutical uses, and the electric current in diagnosis are considered. The use of the static machine and X-ray apparatus is taught by actual work and demonstration. The course includes also the principles of massage. Junior year, second semester. Twelve hours. Dr. GRIMES.

11. PRACTICAL THERAPEUTICS—An elective course. This consists in the preparation of theses by the students, upon stated cases involving original research and reference to the latest and most approved medical periodicals. Such theses will be read and discussed by the members of the senior class. A brief course in invalid cookery will also be presented as an elective. One hour each week, first semester, and first term of second semester.

General review of entire subject. Second term of second semester. One hour each week. Professor CHASE.

DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY

PROFESSOR BIERRING; DR. ALBERT, DR. LAMBERT, MR. KRAUSE

The course in Pathology and Bacteriology extends through

the sophomore, junior, and senior years, and is presented by means of didactic lectures, recitations, demonstrations, and laboratory work. The lectures are devoted to Bacteriology and general and special Pathology, and are illustrated by means of drawings, preparations from the Medical Museum, and fresh specimens derived from post-mortem examinations and the University clinics.

The laboratory of Pathology and Bacteriology is situated in the College of Liberal Arts. It is thoroughly equipped with new microscopes of the most modern type, and all apparatus necessary for carrying on every form of bacteriological research. By reason of special association with the pathological institutes of Vienna, Leipzig, and Munich, the laboratory has come into possession of a most complete and varied collection of diseased tissues and organs, for the study of general and special pathological histology. Each student is provided with a table, a microscope, and the necessary staining reagents.

The new laboratory building of the College of Medicine, now in prccess of construction, will be ready for occupancy about October, 1903, after which the deparment of pathology and bacteriology will be transferred to this building.

The general laboratories will be provided with ample light and equipped in the best possible manner. Special facilities will be offered for original research and investigation.

2. GENERAL PATHOLOGY AND PATHOLOGICAL HISTOLOGY —A didactic, recitation, and laboratory course, including the general features of infection, and the causation of disease processes, disorders in circulation and nutrition, inflammation, and allied subjects. The laboratory work consists of two hours each week from January to June, and illustrates the didactic lectures. It comprises the preparation and study of slides showing the general pathologic changes that occur in human tissues. Special attention is given to the drawing of the microscopic specimens; to test the knowledge of the student reviews of unknown specimens are given at different times during the course. Sophomore year, four hours each week. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

2. BACTERIOLOGY—A didactic, recitation, and laboratory course for juniors from September to January, which includes the preparation of artificial culture-media, the cultivation of micro-organisms, and their separation by means of plate cultures, the staining, recognition, and diagnosis of the different pathogenic microbes as they are related to the various infectious processes.

Special attention is given to the bacteriologic analysis of water, and the practical application of bacteriologic technique to hygiene and clinical diagnosis. The didactic lectures will include such subjects as cannot properly be pursued in connection with the laboratory work. A recitation will be held each week during the course. Junior year, seven hours each week, from September to January. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT, Mr. KRAUSE.

3. SURGICAL PATHOLOGY—A laboratory course for juniors comprising principally the preparation and study of tumors. The extensive materia from the University clinics is drawn upon, which, with the collection in possession of the laboratory, affords the opportunity of studying every possible variety of tumor formation.

Special attention is given to the drawing of microscopic sections. This and the occasional reviews of unknown specimens test the student's ability properly to make a microscopic diagnosis. Junior year, two hours each week during the second term of the first semester. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

4. SPECIAL PATHOLOGY—A didactic, demonstration, recitation, and laboratory course, with reference to the special pathology of the different tissues and organs of the human body.

The laboratory work will comprise the preparation and study of microscopic sections, illustrating as far as possible the subjects considered in the didactic lectures. Frequent demonstrations of gross pathologic preparations derived from the clinics, autopsies, and the Medical Museum will further elucidate the subject. Junior year, five hours each week, from January to June. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

5. CLINICAL MICROSCOPY AND HÆMATOLOGY—A laboratory course for senior students, devoted to practical study of blood, urine, sputum, stomach contents, vomitus, fæces, milk, dropsical effusions, and cyst contents, and instruction in such methods of clinical diagnosis as involve the usual microscopic and bacterial analysis. Special attention is given to the rapid diagnosis of fresh material, uterine curettings, and the early signs of malignancy. Senior year, two hours each week during the first semester and first term of the second semester. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

6. AUTOPSIES—Post-mortem examinations are made of all available cases. Since no stated time can be set for these demonstrations, members of both junior and senior classes are excused from other work in hand to attend the clinical autopsies.

Students are permitted to assist at post-mortem examinations and instructed in the methods of making such examinations and of recording proper protocols of the results.

The microscopic findings are studied in each case for comparison with the macroscopic changes. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

7. ADVANCED WORK AND SPECIAL RESEARCH—Opportunity is afforded to senior and advanced students to pursue special researches in pathology and bacteriology.

Candidates for higher degrees and members of the Graduate College can in the pathological laboratory carry on special work in pathology and bacteriology leading up to such degrees under the supervision of the head of the department. Professor BIERRING.

DEPARTMENT OF THEORY AND PRACTICE OF MEDICINE

PROFESSOR LITTIG; DR. BURGE, DR. DECKER, DR. MCCLINTOCK.

The instruction is by lectures, recitations, reviews, and clinics. Many of the subjects treated in the didactic course find illustration in the hospital wards, and the clinical amphitheater. A special effort is made to train the reasoning

and thinking powers of the student rather than to permit him to depend upon his memory. Pathology, pathogenesis, the natural history, and the clinical course of disease is regarded as especially important. The work is facilitated by frequent post-mortem examinations.

1. THEORY AND PRACTICE OF MEDICINE—Lectures to the junior and senior classes. First semester, one hour each week; second semester, three hours each week. Professor LITTIG.

2. DISEASES OF THE NERVOUS SYSTEM—Lectures to the junior and senior classes. First semester, two hours each week. Professor LITTIG.

3. RECITATIONS AND REVIEWS IN THE ABOVE SUBJECTS—Senior class, one hour each week; junior class, one hour each week; throughout the year. Professor LITTIG.

4. CLINICAL INSTRUCTION IN GENERAL MEDICINE—Junior and senior years, two hours each week throughout the session. Professor LITTIG.

5. PHYSICAL DIAGNOSIS—A course of practical bedside instruction given to the class in small sections in which the means, methods and principles of diagnosis are demonstrated and the students required by personal work to discover and differentiate diagnostic symptoms and correlate them into definite disease pictures. Daily throughout the session. Junior year. Dr. BURGE.

PÆDIATRICS—This subject is presented by means of lectures and recitations. Special stress is laid upon diagnosis, particularly of the contagious diseases and those of the gastroenteric tract. The practical treatment of the common ills of infancy and childhood receive careful attention. Senior year, first semester, second term, twelve hours. Dr. DECKER.

7. PRACTICAL ELECTRO-THERAPEUTICS—Special attention is devoted to this subject by Dr. MCCLINTOCK.

DEPARTMENT OF SURGERY

PROFESSOR JEPSON; DR. LITTIG, DR. BIERRING, DR. ALBERT, DR. CRAWFORD, DR. DECKER.

This subject is graded in the third and fourth years, and

is taught by lectures and recitations; by laboratory work in minor surgery, operations on the cadaver, and surgical technique; by ward classes, and by clinics in the University Hospital, at which operations in every branch of surgery are open to the class.

1. THE PRINCIPLES OF SURGERY — Hyperæmia; simple inflammation; infective inflammation; the process of repair, gangrene; shock; fever; surgical fevers; septicæmia; pyæmia; erysipelas; hospital gangrene; tetanus; hydrophobia; actinomycosis; anthrax; glanders; snake-bite; tuberculosis; surgical tuberculosis of joints and bones; syphilis. Lectures and recitations, three hours a week, first semester, junior and senior years. Professor JEPSON.

2. OPERATIVE TECHNIQUE—Lectures and practical work on operative procedures, principles of asepsis, antisepsis, and sterilization; preparation of patient and operator, of instruments and operating rooms; anæsthesia and anæsthetics; hæmostasis; ligatures; sutures; dressing and care of wounds. The technique of kidneys, gall-bladder, stomach, and intestinal surgery, and other operations, such as trephining, tracheotomy and intubation, are illustrated before the class on the lower animals under antiseptic regulations. One hour a week, first semester, junior year. DR. CRAWFORD.

3. MINOR SURGERY, BANDAGING, AND DRESSING—Practical instructions, by demonstration and practice, in the various manipulation of Minor Surgery, including the application of splints, and bandages. Two hours a week, first semester, junior year. DR. LITTIG, DR. DECKER.

4. TUMORS—A special course on the classification, description, and pathology of tumors, with general principles of treatment. Lectures and recitations, with laboratory demonstration. One hour a week, first semester, second year. DR. BIERRING.

5. THE PRACTICE OF SURGERY AND ORTHOPEDIC SURGERY—Injuries and diseases of regions and systems; fractures and dislocations; deformities, with general principles of pathology and treatment. Lectures and recitations, four hours a week, second semester, junior and senior years. Professor JEPSON.

6. OPERATIVE SURGERY—A dissecting-room course, consisting of all the operations in modern surgery, performed by sections of the class, under the supervision of instructors. Two hours a week, first semester, senior year. Dr. ALBERT.

7. WARD CLASSES—Examinations, observation and dressing of patients, in wards of the University Hospital, in company with the Assistant to the Chair of Surgery. Class in sections, one hour a week, first and second semester, senior year. Dr. ALBERT.

8. CLINICAL SURGERY—Clinics, at which advanced students are required to assist, and at which operations and manipulations in general surgery are demonstrated to students of third and fourth years, and to other students whose schedule does not prevent attendance. Three to four hours a week throughout the junior and senior years. Professor JEPSON.

9. ANÆSTHETICS—During the senior year each member of the class will receive practical instruction in the production of general and local anæsthesia, under the supervision of the anæsthetist of the surgical clinic. Class in sections, one section a week, senior year. Dr. ALBERT.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

PROFESSOR GUTHRIE

OBSTETRICS

This course embraces a thorough training in diagnosis of pregnancy, the physiology and pathology of pregnancy, diagnosis of presentation and positions, the management of labor, normal and abnormal, measurements of the pelvis, and a complete course upon surgical obstetrics; taught by wet specimens, upon the manikin, and upon patients when practicable.

The class is divided into sections for study and drill in diagnosis and in operative obstetrics.

1. DIDACTIC LECTURES—Two each week during the session upon Obstetrics, including a discussion of physiology and pathology, management of gestation, management of labor, normal and abnormal labor, management of puerperium, dystoaic, and care of the new-born child. Junior year.

2. OPERATIVE OBSTETRICS—Course of six lectures, illustrating by both dried and wet specimens. Senior year.

3. COURSE UPON THE MANIKIN for diagnosis and demonstrating the use of forceps and other mechanical appliances and in obstetrical manipulation, equivalent to one hour each week during the session. Senior year.

GYNECOLOGY

The instruction in this subject for both junior and senior classes combines didactic lectures, recitations, and demonstrations, with clinical demonstrations in both major and minor operative Gynecology. The following courses are given:

4. BEDSIDE CLINIC—A ward clinic will be held every week, where each student will have an opportunity to examine the patient and to observe both the post-operative condition and the treatment of all operative cases. The merits of each case are discussed and indications for after treatment carefully studied. Students will be drilled in the matter of special diet and hygiene. Senior year.

5. WARD CLASS in diagnosis will be given each week throughout the year, at which sections will be instructed in the matter of securing good histories and drilled in taking the same. They will be taught how to conduct an examination and from history and physical condition to form correct diagnoses. Senior year.

6. DIDACTIC LECTURES—The first semester is occupied with lectures on the general scope of the subject, methods of examination, etiology, pathology, and general management of gynecological patients. The rest of the course will be devoted to a discussion of special conditions, operative and gynecological technique. Junior and senior years. One lecture a week.

7. CLINIC will be held each week, demonstrating methods of examination and diagnosis, illustrating both major and minor gynecological operations. A constant effort will be made to instruct in modern methods and improved technique. Junior and senior years.

8. GYNECOLOGICAL LANDMARKS—One hour each week during the first semester is devoted to a study of landmarks and cultivation of touch in palpating pelvic viscera.

DEPARTMENT OF OPHTHALMOLOGY

PROFESSOR DALBEY

The lectures are delivered and the clinic is held in the University Hospital.

1. Lectures and recitations on the physiology and anatomy of the eye and orbit, diseases of conjunctiva, lachrymal apparatus, and external muscles. One hour a week, first semester, senior year.

2. Lectures and recitations on the internal diseases of the eye, including the diseases of the retina, choroid, ciliary body, iris, optic nerve, etc., and on refraction. One hour a week, second semester, senior year.

3. Clinical lectures, demonstrations, and operations on the eye. In this work the class will be divided into sections of eight so that they may be able to see better the minutiæ of the operations on the eye. The material will be so arranged that each section will see, at least once, all the ordinary operations. Two hours a week, senior year.

DEPARTMENT OF OTOLOGY, RHINOLOGY, AND LARYNGOLOGY

PROFESSOR DEAN

The department of Otology occupies the ground floor of the West Wing of the Hospital. The suite of rooms comprises the waiting room, a clinical room, a combined operating and treatment room, a recovery room, and a clinical laboratory.

The clinical room is supplied with enough lights on movable brackets so that each student may have one for his individual work. The treatment and operating room is well furnished with modern instruments for operations for and treatment of the diseases of the ear, nose, and throat. Connected with the clinical room is a clinical laboratory, in which are microscopical specimens of all the diseases of the ear, nose, and throat. It has an abundant supply of

anatomical specimens showing the normal and anomalous conditions of the nose and its sinuses, and of the ear and the mastoid process. These preparations are arranged so that the student may take them and study them at his leisure.

The laboratory is equipped with a microtome and the ordinary apparatus for microscopical work. All pathological growths removed in the clinic during the year are prepared here, and the student is given opportunities of seeing the microscopical pathology of all cases which he has examined in the clinical room.

The instruction is given by lectures, recitations, and personal work done in the clinic. In the University Clinic enough material is obtained so that during the clinic hours each student has his own patient for examination and diagnosis. During the year the student has abundant opporttunities for seeing all the ordinary operations upon the ear, nose, and throat. Three clinics a week are held at the University Hospital in this department in order that the class may do work in sections.

1. METHODS OF EXAMINATION AND DIAGNOSIS OF DISEASES OF THE EAR, NOSE, AND THROAT—The anatomy and physiology of the diseases of the nose and the nasal pharynx. Lectures and recitations. First semester, two hours a week.

2. ANATOMY AND PHYSIOLOGY AND DISEASES OF THE LARYNX—Lectures and recitations. Senior year, second semester, first term, two hours a week.

3. ANATOMY AND PHYSIOLOGY AND DISEASES OF THE EAR—Lectures and recitations. Senior year, second semester, second term, two hours a week.

4. PRACTICAL CLINICAL INSTRUCTION AT THE UNIVERSITY HOSPITAL in diagnosis of the diseases of the nose, throat, and ear, in methods of examination, in the practical use of instruments and in the application of remedies, operative and medical; in sections of not more than fifteen each. Senior year, first and second semester, two hours a week.

5. CLINICAL, MICROSCOPICAL, AND PRACTICAL ANATOMY OF THE EAR, NOSE, AND THROAT—Four hours a week for one semester. Course optional. Number limited to two.

MEDICAL JURISPRUDENCE

The course is opened with the consideration of the nature and purposes of law, then of laws affecting the practice of medicine. Malpractice is discussed and the liability to the physician by the patient and others, including that of municipalities for the treatment of patients. The questions of legal insanity, expert evidence and expert witnesses, hypothetical cases, causes of death, and post mortem examination follow, and, in conclusion, the subject of state and local boards of health, quarantine regulations, etc. Senior year, first semester, twelve hours. Judge WADE.

INSANITY

This subject is discussed as concisely as possible with the special needs of the general practioner constantly in view, and the material that appears at the clinic from time to time during the term is utilized in illustration. Senior year, second semester. Twelve lectures, with clinical instruction at the Hospital for the Insane at Independence. Dr. HILL.

HYGIENE

Instruction in Hygiene, in addition to that given in Pathology, Bacteriology, and Physiological Chemistry, consists of a course of lectures and recitations. In this course will be considered the predisposing factors of disease; the principles on which immunity depends; the relation of ventilation, water-supply, food, and the disposal of waste to the public health; climatology, heredity, vital statistics and other subjects. A syllabus of the lectures will be available which will contain references to the literature of each subject. Junior year, first semester, twenty-six hours. Dr. CLARKE.

DERMATOLOGY

The instruction in this branch is largely clinical, students of the class being assigned patients for examination, diagnosis, and treatment. Didactic lectures and recitations are given on the rarer forms of disease. Senior year. Throughout the session, one hour each week. Dr. KESSLER.

DENTISTRY

The lectures on this subject comprise such principles of dental pathology and therapeutics as are essential to the practioner of medicine. Instruction is given in the application of mechanical appliances for the correction of cleft palate, also in methods of applying retention in fractures of maxilla. Junior year, second semester, five hours. Dr. BREENE.

TEXT-BOOKS AND BOOKS OF REFERENCE

The following are recommended by the faculty:

Medical Dictionary—Gould, Duane, Dunglison.

Anatomy—Gray, Quain, Gerrish, Morris, Treve's Surgical Applied Anatomy.

Dissectors—Holden, Heath, Ellis.

Comparative Anatomy—Wiedersheim, Jeffery Bell, Howell.

Physiology—American Text-Book, Kirk, Stewart, Stirling.

General Chemistry—Remsen, Bartley, Roscoe and Schorlemmer.

Analytical Chemistry—Rockwood.

Physiological Chemistry — Rockwood, Simon, Herter, Vaughan and Novy.

Urine Analysis—Purdy, Ogden.

Toxicology—Wormley, Taylor.

Surgery—Park, American Text-Book of Surgery, DaCosta, Stimson on Fractures and Dislocations, Wharton's Minor Surgery and Bandaging, Warren's Surgical Pathology, Senn on Tumors.

Pathology—American Text-Book of Pathology, Stengel, Ziegler, Coplin, Delafield and Prudden, Green.

Bacteriological Technique—Eyre.

Pathological Technique—Malloy and Wright.

Clinical Diagnosis—Simon, von Jaksch.

Haematology—Ewing, Cabot, or DaCosta.

Bacteriology—Abbott, McFarland, Park, Meier and Ritchie, Crookshank, Sternberg.

Practice of Medicine—Osler, Struempel, Tyson, Anders, Thompson, Eichorst, American Text-Book of Theory and Practice of Medicine, Albutt.

Medical Diagnosis—Vierordt, Musser, DaCosta, Flint.

Obstetrics — American Text-Book of Obstetrics, Lusk, Davis, Parvin, Leishman, Playfair, King, Dorland.

Obstetric Surgery—Grandin and Jarmin.

Embryology—Minot, Manton.

Gynecology — Skene, Thomas and Munde, Garrigues, American Text-Book, Pozzi, Davenport, May's Manual, Clinical Gynecology, Keating and Coe, Dudley.

Materia Medica—White and Wilcox, Potter, Cushny.

Therapeutics—Hare, Wood, Sollmann.

Diseases of Children—Holt, Starr's American Text-Book, J. L. Smith, Goodhart.

Medical Jurisprudence—McClellan's Civil Malpractice, Wharton and Stille, Beck, Elwell.

Histology—Stoehr, Piersol, Schafer, Stirling.

Ophthalmology—Fuchs, Juler, Noyes, Nettleship on the Eye.

Otology and Rhino-Laryngology—Deuch, Bosworth, Kyle, Price-Brown, Buck, McBride.

Insanity—Compendium of Insanity, Chapin; Mental Diseases, Berkley; Nervous and Mental Diseases, Church and Peterson.

Dermatology—Jackson, Crocker, Stelwagon and Hyde.

Hygiene—Notter and Firth, Abbott.

Dietetics—Thompson, Pavy.

Text-books and books of reference can be obtained at an average cost per volume of from $2.00 to $5.00, or $15.00 to $20.00 per year.

The thorough study of a single text-book in each department is of far greater advantage to the student during his college course than the cursory reading of several. It is therefore advised that a single work in each branch be chosen, using any of the others for reference. The first one of each of the above lists is preferred.

UNIVERSITY HOSPITAL

The Twenty-sixth General Assembly levied a tax for the erection of new buildings for the University, and by the action of the Board of Regents the first year's tax, somewhat more than fifty thousand dollars, was deovted to the building

and equipment of a hospital which was opened for the reception of patients in 1898. The University Hospital is in all respects modern and without a superior in the West. With an administration building thoroughly furnished, with large and commodious wards, as well as private rooms, with a clinical amphitheatre that will comfortably seat two hundred or more, and with separate surgical, gynecological, medical, ophthalmological, and laryngological operating rooms, together with a well supplied Free Dispensary, open throughout the year, but little is left to be desired.

CLINICS

The Clinics have been well and abundantly supplied with material. The patronage of the Hospital, which is open for the reception of patients during the year, is such that a variety of cases is presented for operation and treatment.

Every case is fully utilized as a means of instruction by a system of examination in which advanced students are required to diagnosticate disease and suggest treatment before the class, subject to the correction of the clinical teacher. Members of the senior class examine patients in the hospital wards before the medical and surgical clinics. They also visit wards under the direction of a member of the hospital staff, where opportunity is given to observe dressings, to note the progress of cases, and to make such examinations as may be consistent with the comfort and safety of patients.

CLINICAL PATIENTS

Medical cases should be referred to Professor L. W. Littig; surgical caseses to Professor Wm. Jepson; gynecological cases to Professor J. R. Guthrie; eye cases to Professor J. W. Dalbey; ear, nose, and throat cases to Professor L. W. Dean; dermatological cases to Dr. J. B. Kessler.

RESIDENT PHYSICIANS

Appointments as Resident Physicians in state and other institutions are made each year from the graduates of the College of Medicine. These are awarded to such of the applicants as the faculty judges best prepared for the positions, the suc-

cessful candidates being allowed to select, in the order of their rank, from those which are available.

For the present year the appointments are, Dr. Isaac E. Nervig, University Hospital: Dr. Gordon F. Harkness, Mercy Hospital, Davenport.

REQUIREMENTS FOR GRADUATION

1. The candidate must be twenty-one years of age.
2. He must be known to be of unexceptional moral character.
3. The time of study must include attendance upon at least four full courses of lectures, the last of which must be taken in this institution. The time occupied by each of the four courses of lectures shall not be less than thirty-four weeks, and no two of the four courses shall be within the same year.
4. The candidate must have satisfactorily completed at least four courses in Practical Anatomy.
5. The deportment during the term must have been unexceptional.
6. Attendance upon all lectures, clinics, and other instruction in the the course must have been in accordance with the requirements of the College.
7. All members of the freshman class will be examined in General Chemistry, Histology, Physiology, and Anatomy at the end of that year. The examination in General Chemistry and Histology will be final should the student show the required proficiency.
8. Members of the sophomore class at the end of that year must pass satisfactory examinations in Anatomy, Physiology, Physiological Chemistry, General Pathology, Materia Medica and Pharmacy.
9. Members of the junior class will be given a final examination at the end of the year in Therapeutics, Obstetrics, Hygiene, Special Pathology, and Bacteriology.

In the case of failure to pass any of the examinations, the student must be re-examined before registration at the opening of the next session. If he fail in this second examination, he will be allowed to present himself for re-examination only after attendance upon another course of lectures, and to this he will not be admitted unless his average record

for the previous year is satisfactory. A failure in more than two branches at this September examination will debar the student from admission to a higher class.

Students of the senior class who are candidates for the degree of Doctor of Medicine must, before May first, present to the Secretary of the Faculty certificates of legal age. During the last week of the term, having complied with the other requirements, they must pass a satisfactory examination in Practice of Medicine, Surgery, Ophthalmology, Gynecology, Pædiatrics, Dermatology, Otology, and Rhino-Laryngology, and in any other subjects taught, if so directed by the faculty at the beginning of the term.

Class standing and recitation marks, together with demonstrators' reports and final examinations, will be taken into consideration when determining the candidate's fitness to receive the medical degree.

TUITION

The fee for tuition is $65.00 for each year, of which $40.00 must be paid at the time of registration, and the balance at the beginning of the second semester. All fees must be paid when due to the Treasurer of the Board of Regents, Lovell Swisher, and students who do not pay them when due will be suspended from the College until payment has been made.

In the combined courses the fees are $25.00 for each year in the College of Liberal Arts, and $75.00 for each year in which the student carries work in the College of Medicine. Students entering the College of Medicine from other schools with advanced standing will pay $10.00 for dissecting material used in making up deficiencies in this branch. For students taking a partial course the fees are $10.00 per year for each branch except dissecting, where the fee is $15.00. For all honorably discharged soldiers who served in the Spanish-American War, and who are taking a full course in this college there is an annual remission of $25.00 from the above fees.

There are no extra fees whatever, but for each laboratory iourse in chemistry, also for that in practical pharmacy, there is required a deposit of $3.00 to cover breakage and to cnsure the return of all keys at the close of the session. This

sum (breakage, if any, deducted) is returned to the student on presentation of the certificate of the professor in charge of the laboratory in question.

The above statement is now in effect, and will be understood to apply to all students in the College, irrespective of the date of matriculation.

Alumni of the College will be admitted to lectures and clinics free of charge, but will pay the usual laboratory fees. Graduates of other medical colleges which are recognized by this College, will, when not candidates for a degree, be admitted to full lecture privileges upon paying the matriculation fee of $5.00 and a fee of $10.00 with the usual laboratory fees.

Seats will be assigned by classes in the order of registration at the University.

A certificate of attendance will be issued to each student at the close of the session.

NECESSARY YEARLY EXPENSES

Tuition fee, which includes all University charges except laboratory breakage	$ 65	$ 65
Breakage	1 to	2
Room rent, 9 months	18 to	72
Board, 36 weeks	72 to	108
Fuel and light	6 to	15
Books	12 to	20
Total	$174 to	$282

ALUMNI LIST

Graduates of this College are requested to acquaint the Secretary of the Faculty immediately with their postoffice addresses and to inform him promptly of any change of residence.

The following is a specimen programme:

FRESHMAN YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Physiology	Histology	Physiology Recitation	Histology	Histology Recitation	Anatomy
9 to 10	Chemistry	Physiology	Chemistry	Anatomy	Histology	
10 to 11	Anatomy	Anatomy	10:00to 12:00 *Chemical Laboratory Sec. II*	10:00 to 12:00 *Chemical Laboratory Sec. I*	Chemistry	10:00to 12:00 *Histological Lab. Sec. I*
11 to 12					Pharmacy 2nd Sem	10:00to 12:00 *Chemical Lab. Sec. II*
1 to 2	1:00 to 3:00 *Histological Laboratory Sec. I*	1:00 to 3:00 *Histological Laboratory Sec. II*	1:00 to 3:00 *Histological Laboratory Sec. I*	1:00 to 3:00 *Histological Laboratory Sec. II*	1:00 to 3:00 *Histological Laboratory Sec. I*	
2 to 3		1:00 to 3:00 *Chemical Laboratory Sec. I*			1:00 to 3:00 *Chemical Laboratory Sec. II*	
3 to 4	3:15 to 5:15	3:15 to 5:45	3:15 to 5:45	3,15 to 5:45	3:15 to 5:45	
4 to 5	*Chemical Laboratory Sec. II*	*Anatomical Laboratory*	*Anatomical Laboratory*	*Anatomical Laboratory*	*Anatomical Laboratory*	

SOPHOMORE YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9		Anatomy	Materia Medica	Materia Medica Recitation		
9 to 10	General Pathology	Phys'l'g'c'l Chemistry	Physiology	Physiology	Physiological Chemistry	8:00 to 12:00 Physiological Laboratory
10 to 11	Physiology	10:00to 12:00 *Physiolog'l Laboratory*	Anatomy	Anatomy		
11 to 12	Surgical Clinic		Materia Medica	Pathology Recitation	Anatomy	
1 to 2	1:00 to 3:15 *Physiolog'cl Chem. Lab. Sec. I*	1:00 to 3:00 *Pathologic'l Laboratory Sec. II Jan. to June*	1:00 to 3:15 *Physiolog'cl Chem. Lab. Sec. II*	1:30 to 5:30 *Physiolog'cl Laboratory*	1:30 to 3:00 *Medical Clinic*	
2 to 3	1:00 to 3:00 *Physiolog'cl Laboratory Jan. to June*	1:00 to 3:00 *Physiologi'l Laboratory Sept. to Jan.*	:00 to 3:0 0 *1Ptholog'c'l Laboratory Sec. I Jan. to June*			
3 to 4	3:15 to 5:45	3:15 to 5:45	3:15 to :45		3:15 to 5:45	
4 to 5	*Anatomical Laboratory*	*Anamtoical Laboratory*	*Anatomical Laboratory*		*Anatomical Laboratory*	

JUNIOR YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Practice	Surgery	Practice	Practice	Pathology	Practice
9 to 10	Surgery	9:00 to 11:00 *Gynecological Clinic*	Therapeutics	Therapeutics	Surg. Tech. 1st Sem. Surg. Anat. 2nd. Sem.	*Pathology Recitation*
10 to 11	10:00to 12:00 *Surgical Clinic*		Hygiene 2nd Sem.	Pathology	Physiology 2nd and 3d Terms	10:00 to11:00 Physical Diagnosis Sec. II
11 to 12		Gynecol'gy	Toxicology	Physical Diagnosis Sec. I	Practice Recitation	
1 to 2	1:00 to 3:00 *Pathologic'l Laboratory Sec. I*	Obstetrics	1:00 to 3:00 *Pathologic'l Laboratory Sec. II Until Jan.*	1:30 to 3:00 *Medical Clinic*	1:00 to 3:00 *Pathologic'l Laboratory Sec. I Until Jan.*	10:00 to 1200 *Pathologic'l Laboratory Sec. II*
2 to 3		Obstetrics	2:00 to 3:30 Hygiene 2nd Sem.			
3 to 4	Surgery	3:00 to 4:00 *Surgical Clinic*		Therapeutics		
4 to 5						

SENIOR YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Practice	Surgery	Practice	Practice	Ear, Nose and Throat	Practice
9 to 10	Surgery	9:00 to 11:00 *Gynecological Clinic*	Paediatrics 2nd Term	Practice Recitation	9:00 to 11:00 *Clinical Microscopy*	Ear, Nose and Throat
10 to 11	10:00 to 12:00 *Surgical Clinic*		Physical Diagnosis			
11 to 12		Gynecol'gy				
1 to 2	1:00 to 3:00 *Ear, Nose and Throat Clinic*	1:30 to 2:30 Dermatology	1:30 to 3:00 *Eye Clinic*	1:30 to 3:00 *Medical Clinic*	1:00 to 3:00 *Ear, Nose and Throat Clinic*	
2 to 3						
3 to 4	Surgery	3:00 to 4:30 *Surgical Clinic*	Ophthalmology			
4 to 5		4:30 to 5:30 *Operative Obstetrics* 5:30 to 6:00 *Ward Class*	4:00 to 6:00 *Ear, Nose and Throat Clinic*			

UNIVERSITY HOSPITAL

OFFICERS OF THE HOSPITAL

LAWRENCE W. LITTIG, M. D.,
Director.

ISAAC E. NERVIG, M. D.,
Resident Physician.

SUSAN G. PARRISH,
Principal of the Training School.

MARY LOUISE REHERD,
Matron.

SCHOOL FOR NURSES

There is connected with the hospital of the College of Medicine of the University a School for Nurses which offers a three years' course to women who desire to enter the profession of nursing. Lectures will be delivered during the year by members of the Medical Faculty.

The following is the course of lectures:

Diseases of the Eye - - - - - - - - DR. DALBEY
October, Wednesdays, at 4 P. M.

Throat and Nose - - - - - - - - - DR. DEAN
November, Wednesdays, at 7:15 P. M.

Surgical Nursing - - - - - - - - DR. JEPSON
October and November, Mondays, at 7:15 P. M.

Bacteriology and Infectious Diseases, - - - DR. BIERRING
October and November, Tuesdays at 7:15 P. M.

Materia Medica - - - - - - - - - DR. CHASE
December and January, Wednesdays, at 7:15 P. M.

Internal Diseases - - - - - - - - DR. LITTIG
December and January, Mondays, at 7:15 P. M.

Chemistry of Foods, Dietetics, and Infant Feeding - DR. ROCKWOOD
February and March, Wednesdays, at 7:15 P. M.

Hygiene - - - - - - - - - - DR. CLARKE
February, Wednesdays, at 3:00 P. M.

Electro Therapeutics - - - - - - - DR. MCCLINTOCK
March, Thursdays, at 7:15 P. M.

Anatomy - - - - - - - - - DR. HARRIMAN
April and May, Tuesdays, at 7:15 P. M.

Physiology - - - - - - - - - DR. MCCLINTOCK
April and May, Thursdays, at 7:15 P. M.

Recitations or Practical Instruction, 3 hours each week
MISS PARRISH.

THE COLLEGE OF
HOMŒOPATHIC MEDICINE

THE COLLEGE OF HOMŒOPATHIC MEDICINE

FACULTY AND INSTRUCTORS

GEORGE EDWIN MACLEAN, PH. D., LL. D.,
President of the University.

JAMES G. GILCHRIST, M. A., M. D.,
Professor of Surgery and Surgical Gynecology. Secretary of the Faculty. Director of the Hospital.

CHARLES H. COGSWELL, M. D.,
Emeritus Professor of Obstetrics and Diseases of Women.

GEORGE ROYAL, M. D.,
Professor of Materia Medica and Therapeutics. Dean of the Faculty.

BENJAMIN R. JOHNSTON, M. D.,
Acting Professor of Theory and Practice, and Clinical Medicine.

FREDERICK J. BECKER, M. D.,
Acting Professor of Obstetrics and Gynecology.

WILLIAM L. BYWATER, M. D., O. et. A. Chir.,
Acting Professor of Ophthalmology, Otology, Rhinology, and Laryngology. Secretary of the Faculty.

*JOHN W. HARRIMAN, M. D.,
Professor of Anotomy.

*ELBERT W. ROCKWOOD, M. A., M. D.,
Professor of Chemistry and Toxicology.

*WALTER LAWRENCE BIERRING, M. D.,
Professor of Pathology and Bacteriology.

*WILLIAM ROBERT WHITEIS, M. S., M. D.,
Professor of Histology and Embryology.

*JOHN THOMAS MCCLINTOCK B. A., M. D.,
Professor of Physiology.

LEORA JOHNSON, M. D.,
Clinical Assistant to the Chair of Surgery.

RABMOND E. PECK, M. D.,
Assistant to the Chair of Surgery.

LINTON W. STRUBLE, M. D.,
Assistant to the Chair of Materia Medica.

THEODORE L. HAZARD, M. D.,
Assistant to the Chair of Obstetrics and Gynecology, and Lecturer on Paedology.

JAMES MOOREHEAD, M. D.,
Assistant to the Chair of Theory and Practice, and Lecturer on Dermatology.

*JOHN PATRICK MULLIN, M. D.,
Demonstrator of Anatomy.

HENRY DELAVAN HOLMAN,

OSCAR L. GRAY,
Assistant Demonstrators of Anatomy.

FRANK N. BRINK, B. Ph.,

L. D. NILES, B. S., M. D.,
Demonstrators of Chemistry.

*GERSHOM HYDE HILL, M. A., M. D.,
Lecturer on Insanity.

*MARTIN J. WADE, LL. B.,
Professor of Medical Jurisprudence.

ELVA M. DUNHAM.,
Superintendent of the Hospital, and of the Training School for Nurses.

WILLIAM R. OWEN.,
Hospital Interne.

*Members of the Faculty of the College of Medicine.

THE COLLEGE OF HOMŒOPATHIC MEDICINE

The twenty-seventh annual course of instruction will open on Thursday, September 24, 1903, at 8 o'clock a. m. In the afternoon of the same day, at 4 o'clock, the University convocation will be held, which constitutes the formal opening for all the Colleges.

The year is divided into two semesters, each divided into two terms of nine weeks each. The commencement exercises and conferring of degrees will occur at 10 o'clock a. m., on June 15, 1904.

The course of study extends over four years, of nine months each. Men and women are admitted on equal terms. The large and well equipped laboratories in the University, the hospital facilities afforded by the union of the College and hospital under one roof, and the opportunity for collateral study in any department of literature or science, furnish facilities for securing an education in medicine not to be surpassed. Furthermore, a diploma from a university of the first rank has a value that does not attach to that of any private school.

SPECIAL ADVANTAGES OF THIS COLLEGE

1st. In equipment and instruction our laboratories are better than those of any homœopathic college and equal to those of any college in the United States.

2nd. In the libraries of the University and College are over 60,000 volumes at the command of all matriculates.

3rd. The museums of the University afford an education in themselves.

4th. The association of our students with the other colleges of the University broadens the intellectual horizon.

5th. The people of Iowa are partial to Iowa University graduates. Every year the number of calls for desirable positions sent the faculty for our graduates is more than double the number of graduates.

6th. The cost of living in Iowa City is much less than in larger cities, while the social advantages are greater.

7th. The College being a part of the State University, its diploma will never depreciate in value.

8th. The number of students compared with the number of instructors is not so large as to prevent each student from receiving individual attention, not only in the laboratories, but in the quizzes and sub-clinics.

9th. The last and most important advantage lies in our combined courses. The public at the present time require a broad and liberal education of the medical profession. We are prepared to meet this demand. We are prepared to take the graduates of our high schools and after six or seven years of careful and systematic training return them to the public fully equipped.

The faculty most urgently recommends the courses leading to the degrees of B. Ph. and M. D., or B. S. and M. D., to all who contemplate entering the medical profession. The degrees of B. A. and M. D. may also be obtained in the combined course.

REQUIREMENTS FOR ADMISSION

1. Each applicant for admission must present to the Secretary of the Faculty a satisfactory certificate of good moral character, signed by two physicians of good standing in the state from which he comes.

2. The following classes of applicants may be admitted without examination:

a. Graduates or matriculates of reputable universities or colleges who present diplomas or certificates of honorable dismissal from such universities or colleges, together with a special certificate that they have studied Latin at least one year.

b. Graduates of normal schools established by state authority who present diplomas or certificates of graduation, together with a special certificate that they have studied Latin at least one year.

c. Graduates of accredited or other approved secondary schools who present *twenty-four (24)* preparatory credits, including at least one year of Latin. *One preparatory credit is*

defined as the equivalent of one high school study five days a week during a semester at least eighteen weeks in length, on the basis of four studies a day. These preparatory credits must be properly certified by the Superintendent or the Principal of the school from which the applicant comes, on the blank form inserted in this Announcement, or on a similar blank which can be obtained by addressing the President of the University, the Secretary of the Faculty of the College of Homœopathic Medicine, or the University Examiner.

3. Applicants who present *twenty-two* (*22*) preparatory credits properly certified (as indicated under 2 c) may be admitted without examination, *on condition that they complete their preparation within one year from the date of their admission.* No applicant whose deficiencies exceed *two* (*2*) preparatory credits will be admitted as a candidate for graduation.

4. In September, 1903, applicants who do not present credentials as described above will be admitted without conditions only upon passing examinations in the following preparatory subjects:

a.	Latin (one year)	2 credits
b.	English	2 credits
c.	United States History	1 credit
d.	Arithmetic	1 credit
e.	Algebra, through quadratics	3 credits
f.	Plane and Solid Geometry	3 credits
g.	Physics (one year)	2 credits
h.	Botany or some other science	1 credit

5. The applicant who passes examination in all of the subjects enumerated under 4, except such as stand for a total of *two* (*2*) preparatory credits, may be admitted *on the condition stated in paragraph 3.*

6. Applicants who present proper *certificates* covering all or any part of the preparatory studies designated under 4 for examination, may be admitted upon passing examinations in enough *other* preparatory studies to bring the number of their preparatory credits up to at least *twenty-two* (*22*), *on the condition stated in paragraph 3.*

7. All applicants who are admitted without Latin will be required to take the one-year course in Medical Latin

specially provided by the University, the fee being $5.00 for the course. This course is not a part of the regular course in Homœopathic medicine, but is offered as a convenience for such applicants for admission as have not studied Latin. The class in this course will be organized on Monday, October 5, 1903. Students who take this course are required to pay this fee at the time when they pay the first installment of their regular tuition fee.

8. Students who enter with conditions in other preparatory studies than Latin must pass the regular entrance examinations in these studies either in February or September 1904.

9. Students entering from other colleges of medicine with advanced standing must present credentials for preparatory work or be examined as stated above.

10. It is urged that any one expecting to enter the College of Homœopathic Medicine next September send all certificates of preparatory work to the University Examiner *as early in the summer as possible, and certainly before September 1*. If the credentials are satisfactory a card of admission will be sent to the applicant at once. Upon arriving in the city he should present this card to the Dean, or to the Secretary of the Faculty, for signature.

ENTRANCE EXAMINATIONS

Any person expecting to enter the College of Homœopathic Medicine in September, 1903, should be careful to learn before the opening of the University exactly what entrance examinations he will be required to pass. He can learn this by addressing the President of the University, the Secretary of the Faculty of the College of Homœopathic Medicine, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given below*. He should present himself at once at the office of the University Examiner, who will give him all necessary directions.

For *each separate* examination given at any other time than that announced in the following programme, a fee of *two dollars* will be charged by the University.

THE COLLEGE OF HOMŒOPATHIC MEDIC

PROGRAMME OF ENTRANCE EXAMINATIONS

MONDAY, SEPTEMBER 21, TO WEDNESDAY, SEPTEMBER 24, 1903

Arithmetic,	1 credit,	Monday, 1:30 p. m.
Latin,	2 credits,	Monday, 3:30 p. m.
English and Eng. Grammar	2 credits,	Tues. 11:00 a. m. 4:30 p. m. Wed. 11:00 a. m. 4:30 p. m.
United States History,	1 credit,	Tuesday, 1:30 p. m.
Algebra,	3 credits,	Wednesday, 8:00 a. m.
Plane and Solid Geometry,	2 credits,	Wednesday, 9:30 a. m.
Physics,	2 credits,	Wednesday, 1:30 p. m.
Botany,	1 credit,	Wednesday, 3:00 p. m.

All students having deficiencies in their medical work will appear for examination according to the following schedule.

WEDNESDAY, SEPTEMBER 23.

Histology,	8:00 a. m.
Physiology,	10:00 a. m.
Pathology,	10:00 a. m.
Anatomy,	11:00 a. m.
Materia Medica,	3:00 p. m.
Chemistry,	4;00 p. m.

COMBINED COURSES

Arrangements have been made with the Faculty of the College of Liberal Arts by which it will be possible for a student to receive credit in one college for work done in the other, thereby obtaining a degree in each in a shorter time than if the two courses were taken independently. These combined courses are especially recommended to all students who intend to enter the profession of medicine.

REQUIREMENTS FOR ADMISSION TO THE COMBINED COURSES LEADING TO THE DEGREES B. A. AND M. D., OR B. PH. AND M. D.

1.	Latin, or modern language*,	8 credits
2.	English and Literature,	8 credits

* Either four years of Latin, or two years in each of two modern languages, will be accepted. But those who do not present at least *one year* of Latin will be required to take the one year course in Medical Latin at the University.

3.	History (may include Civics),	4 credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 credits
5.	Plane and Solid Geometry,	3 credits
6.	Science,	2 credits
7.	Greek or Electives (*additional* accreditable work in foreign language, English, History or Science),	2 credits
	Total,	30 credits

REQUIREMENTS FOR ADMISSION TO THE COMBINED COURSE LEADING TO THE DEGREES B. S. AND M. D.

1.	Some one foreign language (Latin preferred†, but German or French accepted),	4 credits
2.	English and Literature,	8 credits
3.	History (may include Civics),	4 credits
4.	Algebra (through Quadratics, Theory of Exponents, and Progressions.	3 credits
5.	Plane and Solid Geometry,	3 credits
6.	Science,	2 credits
7.	Electives (*additional* accreditable work in foreign language, English, History, or Science),	6 credits
	Total,	30 credits

For a detailed statement of the requirements for admission, see the latest Announcement of the College of Liberal Arts.

PROMOTION

Admission to higher classes is secured only by examination, oral, written, or both, combined with the quiz-record and class standing. A failure to pass in two or more studies will prevent advancement until the conditions are satisfied. A failure in one study will not prevent advancement, but the student must pass a satisfactory examination in that

† If one year of Latin is not included in the preparatory work it must be made up at the University.

study before the close of the year to which he is promoted. Students presenting credentials from colleges of homœopathic medicine in good standing in the American Institute of Homœopathy, may be admitted to the classes to which such credentials would admit them in the College from which they are issued. The faculty reserves the right to determine the class which any student shall enter, in the case of applicants who have had one or more years in other medical schools.

ADVANCED STANDING

Graduates in science or arts, also those with degrees in pharmacy or dentistry, from accredited schools, under the requirements of the State Board of Medical Examiners, may be granted advanced standing equal to one year's credit, on a schedule of studies to be determined in each case.

Students from colleges in good standing, who, during their college course, have devoted regular time to the study of the following branches: Biology, Botany, Chemistry, Physics, Histology, Physiology, and Human Anatomy, may be admitted to the second year of the medical course.

The number of hours following has been adopted as covering the above requirements:

	DIDACTIC	LABORATORY
General Biology with Physiology, especially the physiology of circulation, respiration, nerve and muscle, excretion	180	
Botany, collegiate grade,	72	
Mammalian Anatomy with comparative anatomy (human),	60	60
Zoology, not including Anatomy,	120	120
Chemistry, non-metallic, metallic, and organic, including stochiometry,	100	200
Physics,	180	
Histology,		
Of cells and tissue,	32	48

Digestive tract, accessory glands, etc.	22	33
Respiratory tract, skin, and nervous system,	36	72
Also genito-urinary histology,	—	—
Embryology,	60(including laboratory)	

An opportunity will be given at this College for making up the human dissection of the freshman year.

Graduates from literary or scientific colleges having pre-medical courses which have been approved by this faculty will be admitted to the sophomore class upon the presentation of certficate of graduation from such courses. All others should present specific statements of the work completed before graduation with the above as the minimum amount.

Colleges now having such courses or announcing the intention of establishing them are:

Coe College;	Simpson College;
Des Moines College;	Western College;
Iowa College;	University of So. Dakota.

Students entering under these conditions at the end of their first year must pass examinations in all branches of the freshman year not previously pursued by them. They must also have completed the work required of the sophomore class in the dissection of the human subject.

Graduates of non-homœopathic medical colleges may be admitted as graduate students, as follows: If an *ad eundem* degree is sought they must matriculate in the University, pay the regular fee, and pass an examination in the therapeutics of the branches taught in this College. If a degree is not sought, a matriculation fee is to be paid, and such laboratory expenses as may be necessary, together with a lecture fee, if a full course is taken.

Alumni of this school will be admitted to all lectures and clinics free of charge, but if regular attendants must be registered as graduate students.

By order of the Board of Regents no student will be enrolled until all necessary fees have been paid.

OUTLINE OF THE PLAN OF INSTRUCTION

DEPARTMENT OF ANATOMY

PROFESSOR HARRIMAN; DR. MULLIN, MR. HOLMAN, MR. GRAY

Anatomy is taught by means of lectures, conferences, recitations, and demonstrations, and by practical work in the laboratories.

Lectures are illustrated by charts, models, blackboard figures, wet and dry specimens, and recent dissections of the human body. A complete assortment of disarticulated human bones is loaned to each student at the beginning of the year. The laboratory of practical anatomy occupies the basement of the Medical Building. Recent legislative enactment provides ample material for dissection.

1. OSTEOLOGY—A course in the anatomy of the human skeleton by means of lectures, recitations, and demonstrations. Four hours each week during first semester, freshman year. Professor HARRIMAN.

2. ARTHROLOGY, MYOLOGY, AND ANGIOLOGY—A course in the anatomy of joints, muscles, arteries, veins, and lymphatics, by lectures, recitations, and demonstrations upon the dissected human body. Four hours each week during first term of second semester, freshman year. Professor HARRIMAN.

3. SPLANCHNOLOGY—A course in the anatomy of the viscera and allied structures, by means of lectures, recitations, and demonstrations upon dissected bodies and wet specimens. Four hours each week during second term of second semester, freshman year. Professor HARRIMAN.

4. PRACTICAL ANATOMY—A course in the dissection of the human body. Ten hours each week during first term of

second semester, freshman year, 3:30 to 5:30 p. m., daily, except Saturday. Dr. MULLIN, Mr. HOLMAN, Mr. GRAY.

5. OSTEOLOGY, ARTHROLOGY, MYOLOGY, AND ANGIOLOGY—A course consisting wholly of recitations upon subjects taken up during the freshman year. Four hours each week during first term of first semester, sophomore year. Professor HARRIMAN.

6. PRACTICAL ANATOMY—A course in the dissection of the human body. Ten hours each week during second term of first semester, sophomore year, 3:30 to 5:30 p. m. daily, except Saturday. Dr. MULLIN, Mr. HOLMAN, Mr. GRAY.

7. SPLANCHNOLOGY—A lecture, demonstration, and recitation course in the anatomy of the viscera of the trunk and genito-urinary organs. Four hours each week during second term of first semester, sophomore year. Professor HARRIMAN.

8. NEUROLOGY AND ORGANS OF SPECIAL SENSE — A didactic, recitation, and conference course in the anatomy of the cerebro-spinal nervous system and organs pertaining to the special senses. Four hours each week during first term of second semester, sophomore year. Professor HARRIMAN.

9. APPLIED ANATOMY—A didactic, recitation, and demonstration course on the anatomy of important regions, with special reference to its application in medical and surgical diagnosis. Three hours each week during second term of second semester, sophomore year. Professor HARRIMAN.

10. SURGICAL ANATOMY—A lecture and recitation course on anatomy as applied to surgery. One hour each week during second semester, junior year. (Elective). Professor HARRIMAN.

DEPARTMENT OF PHYSIOLOGY

DR. MCCLINTOCK; MR. BAILEY

The department of Physiology occupies a suite of rooms which includes a laboratory of experimental physiology and a room for animals. The latter is so arranged that frogs, turtles, rabbits, etc., can be kept throughout the whole year

under suitable conditions. The room is supplied with separate compartments so that animals which are being experimented upon can be kept by themselves and carefully observed.

The laboratory is fully equipped with apparatus, and chemicals for use in experimental work and new apparatus is being continually added. The outfit includes myographs, chronographs, various forms of electric batteries, galvanometers, kymographs, stethometers, sphygmographs, hemoglobinometers, cardiographs, ophthalmoscopes, and retinoscopes. The course in Physiology is graded in the first and second years.

In the first year the students hear lectures and attend recitations. As far as possible the lectures are illustrated by charts and drawing and by experiments upon the living animals. These lectures cover, as far as possible, the subjects of biology, the fundamental laws governing life, the proximate analysis of the human body, and a study of the nutritive media of the body. Blood, lymph and chyle; a study of circulation, respiration, secretion and excretion, digestion and absorption.

In the second year the work includes lectures upon nerve, muscle physiology, the electrical phenomena of the body; the physiology of the central nervous system of the eye, the ear, the nose, the larynx, and of reproduction. In addition to the lectures and recitations, the student does practical experimental work in the laboratory. For this the class is divided into sections, and each section works under the immediate supervision of the professor or instructor in Physiology. The physiological laboratory is open from nine o'clock in the morning until six o'clock in the evening, and, as the instructor is always present, the student can work as much time outside of his regular hours as he cares to. The student is made familiar with the various apparatus and physiological instruments and their uses and is also taught the methods of experimentation. He is supplied with living animals and upon these studies the physiological activity of the various parts and the organs under normal and abnormal conditions being required to keep an accurate record of his experiments.

In this course the student also studies models of the eye and ear, and performs a number of experiments with the Kuehne artificial eye, observing how it can be converted into a myopic, hyperopic, emmetropic or astigmatic eye. Each student is supplied with an ophthalmoscope and retinoscope and he learns to use these instruments upon the human eye as well as upon artificial eyes. Each student is required to complete at least fifty different physiological experiments.

In the third year a course of ten lectures upon the application of physiological methods commonly used in the practice of medicine. This course is designed to give the student a practical knowledge of the physiological instruments and methods commonly used in the practice of medicine. An optional laboratory course is given to the students of the third year in connection with this course.

1. ELEMENTARY PHYSIOLOGY—Lectures, recitations, and demonstrations dealing with the physiology of the animal and plant cell, the fundamental properties of protoplasm, and the proximate principles of the animal body. Three hours a week, first term, first semester, freshman year. Dr. McCLINTOCK.

2. SYSTEMIC PHYSIOLOGY — Lectures, recitations, and demonstrations. This course includes the physiology of blood, circulation, respiration, and the lymphatic system. Three hours a week, second term, first semester, freshman year. Dr. McCLINTOCK.

3. PHYSIOLOGY OF SECRETION — Lectures, recitations, and demonstrations dealing with the physiology of secretion. Both the external and internal secretions are studied. The changes in the secretory cells and the nervous mechanism governing the secretions are investigated. The course includes a discussion of the physiology of the kidney, skin, ductless glands, and other glands in the body. Three hours a week, first term, second semester, freshman year. Dr. McCLINTOCK.

4. PHYSIOLOGY OF DIGESTION — Lectures, recitations, and demonstrations. This course includes a study of the various digestive juices and their activities, the nervous mechanism governing the digestive organs, the absorption

of food-stuffs, and body metabolism. Three hours a week, second term, second semester, freshman year. Dr. McCLINTOCK.

5. PHYSIOLOGY OF MUSCLE AND NERVE—Lectures, recitations, and demonstrations. This course includes a study of the activity of muscle and nerve under normal and abnormal conditions and the electrical disturbances in muscle and nerve. Three hours a week, first term, first semester, sophomore year. Dr. McCLINTOCK.

6. GENERAL PHYSIOLOGY OF THE CENTRAL NERVOUS SYSTEM—Lectures, recitations, and demonstrations. This course includes the physiology of the spinal cord, sympathetic system, and the peripheral nerves. Three hours a week, second term, first semester, sophomore year. Dr. McCLINTOCK.

7. PHYSIOLOGY OF THE BRAIN AND CRANIAL NERVES—Lectures, recitations, and demonstrations. Three hours a week, first term, second semester, sophomore year. Dr. McCLINTOCK.

8. PHYSIOLOGY OF THE SENSES—Eye, ear, taste, smell, cutaneous and muscular sensations. Lectures, recitations, and demonstrations. Three hours a week, fourth term of the sophomore year. Dr. McCLINTOCK.

9. EXPERIMENTAL PHYSIOLOGY—Laboratory work and demonstrations. This course includes a study of physiological apparatus and its uses. Experiments to demonstrate the functions of the muscular, nervous, respiratory, circulatory, and digestive systems, and on the eye and ear, are performed by the students on frogs, turtles, rabbits, pigeons, dogs, etc.

The class is divided into sections. Fifty-four hours during the sophomore year for each section. Dr. McCLINTOCK, Mr. BAILEY.

10. APPLIED PHYSIOLOGICAL METHODS—Lectures, and recitations. This course includes a study of the ophthalmoscope, retinoscope, sphygmograph, manometer, and their use in practice of medicine.

Lectures one hour a week, first term, second semester, junior year. Fifteen hours optional laboratory work is given in connection with this course. Dr. McCLINTOCK, Mr. BAILEY.

11. ADVANCED PRACTICAL PHYSIOLOGY—Elective. This course is open to students who have completed courses 1 to 10, inclusive. The student may select any subject in Physiology and do advanced work. He will be supplied with animals and apparatus for this work. Nine hours a week, during senior year. Dr. MCCLINTOCK, Mr. BAILEY.

DEPARTMENT OF CHEMISTRY

PROFESSOR ROCKWOOD; MR. BRINK, MR. WERTS, DR. NILES.

The lectures in Chemistry are delivered in the Medical Building. The work in Practical Chemistry is conducted in the Chemical Building of the University in which the College of Medicine occupies rooms on the ground floor. These consist of rooms for the instructors, storerooms, and two large laboratories. They are well lighted, and are heated by steam. Ventilating shafts remove offensive and injurious gases. The outfit is ample for demonstrating the general principles of Chemistry, as well as its application to medicine. Each student is supplied free of charge with a set of the necessary apparatus, being obliged to pay only for that which is injured or destroyed.

The course in Chemistry is designed, first, to give the student a thorough knowledge in fundamental principles, then to assist him in applying these to the problems which he will meet in the practice of his profession. The lectures are fully illustrated by experiments.

1. CHEMISTRY OF THE NON-METALLIC ELEMENTS—Lectures and recitations. Freshman year, first semester. Three hours each week.

2. CHEMISTRY OF THE METALS AND THEIR COMPOUNDS—Lectures and recitations. Freshman year, second semester, first term. Three hours each week.

3. ORGANIC CHEMISTRY — Lectures and recitations. Freshman year, second semester, second term. Three hours each week.

4. QUALITATIVE ANALYSIS—A laboratory course. It includes, first, the methods of testing for the metallic poisons; then the common medicinal compounds are studied. The student learns the methods of chemical manipulation and the

use of apparatus, and also becomes acquainted with the action of reagents and of the common chemicals upon each other. The course includes the chemical examination of water from a sanitary standpoint, each student making a number of analyses of various wholesome and polluted waters. Freshman year, first semester, and first term of second semester. Six hours each week.

5. VOLUMETRIC ANALYSIS—A laboratory course. Volumetric methods of quantitative analysis are especially adapted to the needs of the physician because of the rapidity and ease with which they can be executed. The principal ones are taught and the student is given enough practice to familiarize him with them. Freshman year, second semester, second term. Six hours each week.

6. PHYSIOLOGICAL CHEMISTRY—Lectures and recitations. The lectures are in explanation and amplification of the laboratory work. They include the study of the proximate principles of the body and their chemical changes, also foods and digestion, blood, milk, urine, fermentation, and bacterial products. Sophomore year, first semester, and first term of second semester, two hours each week, and second term, one hour each week.

7. GENERAL PHYSIOLOGICAL CHEMISTRY—A laboratory course. The proximate principles of the body and food materials are prepared by the student and their properties and chemical changes are studied. Experiments in artificial digestion are made, their products being isolated and examined. The constituents of the blood are tested chemically and spectroscopically. Sophomore year, first semester. Two hours each week.

8. APPLIED PHYSIOLOGICAL CHEMISTRY — A laboratory course. The modern methods of Physiological Chemistry are here used in solving problems which arise in the practice of medicine. These include such as the analysis of the gastric juice, quantitative tests being made where they are valuable for diagnostic purposes; the qualitative tests for the abnormal constituents of the urine, with the quantitative determination of such as are of importance; the identification of urinary sediments, of calculi, and of blood stains. Each

student makes a complete examination of a large number of each of these, handing in written reports for correction and suggestions. Sophomore year, second semester. Two hours each week.

9. CHEMISTRY AS APPLIED TO SANITARY SCIENCE—An optional laboratory course. Included in this are the methods suitable for the physician or health officer in testing water, air, milk, and other food materials as to their purity, together with the means of detecting preservatives, adulterants and substitutes. The student works independently as the course is outlined by the head of the department. The number may be limited according to the accommodations of the laboratory. Junior year, second semester. Professor ROCKWOOD, MR. BRINK, DR. NILES.

10. ADVANCED WORK—Suitable courses will be outlined to meet the requirements of the individual graduate student desiring to carry on advanced work either as a major or as a minor in a course leading to an advanced degree in the Graduate College of the University. The applicant for such a course must satisfy the head of the department as to his knowledge of general chemistry and as to his fitness for undertaking original investigations. The work will be under the direct supervision of the professor in charge of the department. Throughout the year. Time to be arranged. Professor ROCKWOOD.

DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY

PROFESSOR WHITEIS; MR. HOOVER, MR. BLYTHE, MR. BOOTS

The Histological Laboratory occupies rooms in the College of Liberal Arts. There are laboratories for class work and for special work. The department is furnished with fifty-five compound microscopes and a number of dissecting microscopes. Among the other equipment may be mentioned several microtomes for brain sections, celloidin work, and paraffin work; incubators and injection apparatus; also the reagents and appliances usually found in a well-furnished histological and embryological laboratory.

1. THE HISTOLOGY OF CELLS AND TISSUES—The first work of the course is on the structure and manipulation of the microscope. It is followed by a consideration of the classification and action of stains. Cell structure, as seen in the simpler forms of plant and animal cells, is first studied, then the more highly differentiated animal cells. After this the histology of the animal tissues is taken up. Freshman year, first semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

2. THE HISTOLOGY OF THE DIGESTIVE TRACT, GENITO-URINARY TRACT, AND RESPIRATORY TRACT—Freshman year, first semester, second term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

3. THE HISTOLOGY OF THE SKIN AND NERVOUS SYSTEM —Freshman year, second semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

4. EMBRYOLOGY AND BIOLOGY — The embryos of the chick, the frog, and some mammal will be studied, in addition to the lower forms of animal life. Freshman year, second semester, second term.

One lecture and one recitation each week. Professor WHITEIS.

Laboratory work, two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

5. LABORATORY TECHNIQUE—An optional course. Freshman year, second semester, second term. Two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

6. ADVANCED WORK FOR A DEGREE IN THE GRADUATE COLLEGE—As a prerequisite to advanced work in this department the student will be required to possess a good working knowledge of both the methods and the subject matter

of general histology and embryology. He will be assigned a private laboratory and offered such opportunities as the general laboratory and library afford. The department will supply the necessary materials in the way of tissues and reagents.

Two courses are offered as follows:

I. *The Eye*—The histology of its tissues, considered in relation to both their phylogenetic and their ontogenetic development. The structure and development of the retina will be specially studied.

II. *The Ear*—The investigation will proceed along the same lines as in the preceding course.

Throughout the year, hours to be arranged. Professor WHITNEIS.

DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY

PROFESSOR BIERRING; DR. ALBERT, DR. LAMBERT, MR. KRAUSE

The course in Pathology and Bacteriology extends through the sophomore, junior, and senior years, and is presented by means of didactic lectures, recitations, demonstrations, and laboratory work. The lectures are devoted to Bacteriology and general and special Pathology, and are illustrated by means of drawings, preparations from the Medical Museum, and fresh specimens derived from post-mortem examinations and the University clinics.

The laboratory of Pathology and Bacteriology is situated in the College of Liberal Arts. It is thoroughly equipped with new microscopes of the most modern type, and all apparatus necessary for carrying on every form of bacteriological research. By reason of special association with the pathological institutes of Vienna, Leipzig, and Munich, the laboratory has come into possession of a most complete and varied collection of diseased tissues and organs, for the study of general and special pathological histology. Each student is provided with a table, a microscope, and the necessary staining reagents.

The new laboratory building of the College of Medicine, now in process of construction, will be ready for occupancy about October, 1903, after which the deparment of pathology and bacteriology will be transferred to this building.

The general laboratories will be provided with ample light and equipped in the best possible manner. Special facilities will be offered for original research and investigation.

2. GENERAL PATHOLOGY AND PATHOLOGICAL HISTOLOGY —A didactic, recitation, and laboratory course, including the general features of infection, and the causation of disease processes, disorders in circulation and nutrition, inflammation, and allied subjects. The laboratory work consists of two hours each week from January to June, and illustrates the didactic lectures. It comprises the preparation and study of slides showing the general pathologic changes that occur in human tissues. Special attention is given to the drawing of the microscopic specimens; to test the knowledge of the student reviews of unknown specimens are given at different times during the course. Sophomore year, four hours each week. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

2. BACTERIOLOGY—A didactic, recitation, and laboratory course for juniors from September to January, which includes the preparation of artificial culture-media, the cultivation of micro-organisms, and their separation by means of plate cultures, the staining, recognition, and diagnosis of the different pathogenic microbes as they are related to the various infectious processes.

Special attention is given to the bacteriologic analysis of water, and the practical application of bacteriologic technique to hygiene and clinical diagnosis. The didactic lectures will include such subjects as cannot properly be pursued in connection with the laboratory work. A recitation will be held each week during the course. Junior year, seven hours each week, from September to January. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT, Mr. KRAUSE.

3. SURGICAL PATHOLOGY—A laboratory course for juniors comprising principally the preparation and study of tumors.

The extensive material from the University clinics is drawn upon, which, with the collection in possession of the laboratory, affords the opportunity of studying every possible variety of tumor formation.

Special attention is given to the drawing of microscopic sections. This and the occasional reviews of unknown specimens test the student's ability properly to make a microscopic diagnosis. Junior year, two hours each week during the second term of the first semester. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

4. SPECIAL PATHOLOGY—A didactic, demonstration, recitation, and laboratory course, with reference to the special pathology of the different tissues and organs of the human body.

The laboratory work will comprise the preparation and study of microscopic sections, illustrating as far as possible the subjects considered in the didactic lectures. Frequent demonstrations of gross pathologic preparations derived from the clinics, autopsies, and the Medical Museum will further elucidate the subject. Junior year, five hours each week, from January to June. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

5. CLINICAL MICROSCOPY AND HÆMATOLOGY—A laboratory course for senior students, devoted to practical study of blood, urine, sputum, stomach contents, vomitus, fæces, milk, dropsical effusions, and cyst contents, and instruction in such methods of clinical diagnosis as involve the usual microscopic and bacterial analysis. Special attention is given to the rapid diagnosis of fresh material, uterine curettings, and the early signs of malignancy. Senior year, two hours each week during the first semester and first term of the second semester. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

6. AUTOPSIES—Post-mortem examinations are made of all available cases. Since no stated time can be set for these demonstrations, members of both junior and senior classes are excused from other work in hand to attend the clinical autopsies.

Students are permitted to assist at post-mortem examinations and are instructed in the methods of making such examinations and of recording proper protocols of the results.

The microscopic findings are studied in each case for comparison with the macroscopic changes. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT.

7. ADVANCED WORK AND SPECIAL RESEARCH—Opportunity is afforded to senior and advanced students to pursue special researches in pathology and bacteriology.

Candidates for higher degrees and members of the Graduate College can in the pathological laboratory carry on special work in pathology and bacteriology leading up to such degrees under the supervision of the head of the department. Professor BIERRING.

MEDICAL JURISPRUDENCE

The course is opened with the consideration of the nature and purposes of law, then of laws affecting the practice of medicine. Malpractice is discussed and the liability to the physician by the patient and others, including that of municipalities for the treatment of patients. The questions of legal insanity, expert evidence and expert witnesses, hypothetical cases, causes of death, and post mortem examination follow, and, in conclusion, the subject of state and local boards of health, quarantine regulations, etc. Senior year, first semester, twelve hours. Judge WADE.

INSANITY

This subject is discussed as concisely as possible with the special needs of the general practitioner constantly in view, and the material that appears at the clinic from time to time during the term is utilized in illustration. Senior year, second semester. Twelve lectures, with clinical instruction at the Hospital for the Insane at Independence. Dr. HILL.

HYGIENE

Instruction in Hygiene, in addition to that given in Pathology, Bacteriology, and Physiological Chemistry, consists of a course of lectures and recitations. In this course will be

considered the predisposing factors of disease; the principles on which immunity depends; the relation of ventilation, water-supply, food, and the disposal of waste to the public health; climatology, heredity, vital statistics and other subjects. A syllabus of the lectures will be available which will contain references to the literature of each subject. Junior year, first semester, twenty-six hours. Dr. CLARKE.

DENTISTRY

The lectures on this subject comprise such principles of dental pathology and therapeutics as are essential to the practitioner of medicine. Instruction is given in the application of mechanical appliances for the correction of cleft palate, also in methods of applying retention in fractures of maxilla. Junior year, second semester, five hours. Dr. BREENE.

MATERIA MEDICA AND THERAPEUTICS.

PROFESSOR ROYAL; DR. STRUBLE.

The work of this department is graded and extends over the entire course of four years.

1. *Freshman Year*—During the first semester one hour each week is devoted to the study of the organon. During the second semester one hour each week on Institutes and the Principles of Homœopathic Medicine. Professor ROYAL.

One hour each week during the entire year is devoted to the study of drugs. Special attention is given to the study of their action on the different tissues of the body. Dr. STRUBLE.

An examination will be held in these branches at the end of each semester. Text books: Hahnemann's Organon, Dewey's Essentials of Materia Medica.

2. *Sophomore Year*—Two hours each week during the entire year will be devoted to the study of the characteristic symptoms of the Polycrests. Every effort will be made to impress on the student's mind, by lectures and quizzes, the individuality of each drug presented. An examination will be held at the end of the year. Dr. STRUBLE.

3. *Junior Year*—Three hours each week, besides one clinical lecture. The characteristic symptoms of each drug are reviewed and the concomitant symptoms are grouped about

these characteristics so as to classify them for therapeutic use. The remedies are divided into two groups, one of which is considered each year.* Professor ROYAL.

4. Senior Year—The seniors will have three hours each week in connection with the juniors, the work being the same as outlined above. At the clinic each senior will be repeatedly called upon to obtain from the patient the history of the case and the symptoms for therapeutic purposes. One additional hour each week will be devoted to the comparison of the symptoms of the different drugs belonging to the same class; during this hour instruction will also be given in the use of Repertories. Professor ROYAL.

Textbooks: Farrington's Clinical Materia Medica, Cowperthwaite's Materia Medica, Allen's Hand Book, and Lilienthal's Therapeutics.

THEORY AND PRACTICE OF MEDICINE AND CLINICAL MEDICINE.

PROFESSOR JOHNSTON; DR. MOORHEAD.

The work of this department is arranged to cover the ground with which the physician should be familiar in a complete and modern manner.

As noted elsewhere in this announcement a full laboratory course is given during the sophomore year.

It is expected that the major part of the didactic work will be completed in the junior year.

The senior year is thus left free for practical application of the preceeding year's studies in the clinics, hospital, dispensary, and out-patient department.

The system of instruction used is a combination of the lecture and recitation methods. A printed syllabus giving the salient points of the subject under discussion is furnished each student.

The following courses are offered:

1. PHYSICAL DIAGNOSIS—The principles of physical diagnosis; training in eliciting physical signs. Study of the normal subject.

*Minerals will be considered 1903 and 1904.

One hour each week during the sophomore year. Professor JOHNSTON.

2. DISEASES OF THE CHEST—Instruction in this subject is given for the most part by clinical lectures. One hour each week during the junior year is devoted to the study of etiology, symptomatology, diagnosis, and treatment. The senior student is required to make and defend his own diagnosis. His fitness for graduation is determined by his proficiency at the bedside. Professor JOHNSTON.

3. DISEASES OF THE KIDNEYS AND BLOOD — Following the work in the laboratory of the sophomore year, there will be a course of lectures during the junior year, and clinical diagnosis with examination of urine and blood in the senior year. Professor JOHNSTON.

4. INFECTIOUS DISEASES are taken up during the junior year, special attention being given to differential diagnosis. Students are taken in regular order to examine cases in the vicinity, and so come in direct contact with patients suffering from this important class of diseases. One hour each week. Dr. MOORHEAD.

5. DISEASES OF THE DIGESTIVE TRACT — One hour each week during the junior year. Clinical demonstration with practice in lavage and analysis of stomach contents during the senior year. Professor JOHNSTON.

6. DISEASES OF THE NERVOUS SYSTEM—A course of lectures illustrated by charts and specimens from the pathological laboratory, supplemented by clinical instruction. One hour each week during the senior year. Professor JOHNSTON.

9. MEDICAL DIAGNOSIS—A course reviewing the whole field previously gone over, but approaching the subject from the standpoint of the individual symptom and its possible significance in building up a diagnosis. Last semester, senior year. Professor JOHNSTON.

10. HYDROTHERAPY AND MANUAL THERAPEUTICS — A course of lectures upon the principles underlying these allied methods of cure with actual demonstration sufficient to enable the graduate to prescribe them intelligently. Professor JOHNSTON.

TEXT BOOKS: Cowperthwaite's *Practice*, Arndt's *Practice*, Goodno's *Practice*, Raue's *Special Pathology and Therapeutic Hints*, Talcot's *Mental and Nervous Diseases*, O'Connor's *Nervous Diseases*, Loomis' *Physical Diagnosis*, Bartlett's *Principles of Diagnosis*.

REFERENCE—Osler's *Practice*, Anders' *Practice*.

DERMATOLOGY

One hour a week throughout the senior year will be devoted to the study of the skin, its nature, structure, functions, diseases, and treatment, including also drug eruptions and their relation to the pathological features of skin diseases.

The instruction in this branch is both didactic and clinical, patients being assigned to members of the class for examination, diagnosis, and treatment.

The lectures are illustrated by large colored plates and supplemented by quizzes and recitations. Dr. MOORHEAD.

Text-books: Kippax's *Diseases of the Skin*, Dearborn's *Diseases of the Skin*.

For reference: Piffard's *Diseases of the Skin*, Hyde *On the Skin*, American Text-Book.

SURGERY

PROFESSOR GILCHRIST; DR. PECK, DR. JOHNSON

FRESHMAN YEAR—*Minor Surgery*, including care of instruments, their selection and uses, and minor surgical procedures, such as dressing wounds, suturing, catheterization, etc. One hour a week, first term, first semester. Bandaging, preparation of splints, and other improvised appliances. One hour a week, for the second term in the first semester. Dr. PECK.

Clinics are to be attended when possible.

Text-book: Martin's *Minor Surgery*.

SOPHOMORE YEAR—*Surgical Anesthesia*, including a description of the agents employed, tests for purity, methods of administration, and treatment of accidents. One hour a week first term, first semester. Dr. JOHNSON.

Surgical Emergencies, treating of Acute Surgery in all its forms, such as hemorrhage, shock, wounds, fractures, dislocations, and foreign bodies. Two hours a week throughout the year. Professor GILCHRIST.

Attendance on general surgical clinic is obligatory.

Text-books: Hamilton's *Fractures and Dislocations* (or Stimson); Gilchrist's *Syllabus*.

JUNIOR YEAR—*Aseptic Technique*, considering all questions relating to securing the most perfect asepsis, according to modern teaching and practice. One hour a week, first term, first semester. Dr. PECK.

Surgical Emergencies, commenced in the previous year, will be concluded. Two hours a week throughout the year. Professor GILCHRIST.

Surgical Pathology will be commenced in this year, considering the causes, symptomatology, special pathology, differential diagnosis, and treatment of conditions usually referred to the surgical practitioner. Two hours a week throughout the year. Professor GILCHRIST.

Text-books: Gilchrist's *Elements of Surgical Pathology*, *American Text-Book*, or any modern work on Surgery.

SENIOR YEAR — *Surgical Pathology* will be concluded. Two hours a week throughout the year. Professor GILCHRIST.

Operative Surgery, showing the general principles of surgical operations, with legal, personal, social, and professional obligations of the surgeon. The commoner operations are made upon the cadaver by the student. One hour a week during the first semester. Professor GILCHRIST.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY.

PROFESSOR BECKER; DR. HAZARD.

During the last four years the department of Obstetrics has been supplied with a sufficient number of clinical patients to afford each senior student the advantage of witnessing and assisting at three deliveries. The presence of the patients at the hospital several weeks before confinement has given the added advantage of studying the symptoms and signs of pregnancy as well as the foetal heart sounds in connection with the same.

In the department of Gynecology the didactic work is combined with clinical in such a manner as to give the students all the advantages of the bedside treatment of this important department of medicine.

The medical as well as surgical treatment of the diseases of women receive attention and the senior students are given every opportunity to familiarize themselves with Gynecological technique.

JUNIOR YEAR—This year is devoted to a review of the anatomy of the pelvis and generative organs and their physiological functions; the physiology of ovulation and gestation; the changes in the maternal organism due to pregnancy; the diagnosis and hygiene of pregnancy, and the management of normal labor.

SENIOR YEAR — During this year special attention is given to the pathological conditions of pregnancy; the causes and management of abortion and premature labor; the diagnosis and management of the various fœtal presentations; the methods of performing version; the use of the obstetrical forceps and the management of the puerperium and its pathological conditions.

During the second semester a practical course in the diagnosis and management of the various fœtal presentations will be given.

Text-books: Leavitt, American Text-Book of Obstetrics, Guernsey, Lusk.

Gynecology.

JUNIOR YEAR — During this year one hour each week is devoted to abnormalities in the development and functions of the sexual organs, including puberty, menstruation with its various pathological conditions and the climacteric and inflammatory and other diseases usually coming under the head of medical gynecology.

Text-books: Wood, Mintous Uterine Therapeutics, Southwick.

SENIOR YEAR—During this year one hour each week is devoted to the study of the injuries of the genital tract, their

results, treatment, and repair, displacements and their correction and neoplasms of the genital tract, their results and treatment, and repair. Professor BECKER.

Text-books: Skene, *American Text-Book of Gynecology*, Kelley's *Operative Gynecology*.

During the first semester of the senior year instruction will be given regarding the new-born infant, its care in health and in the accidents and diseases incident to birth. Dr. HAZARD.

PÆDOLOGY

DR. HAZARD

SENIOR YEAR—One lecture each week during the year will be given on this subject. After treating of those conditions of the infant pertaining to the department of obstetrics the subject of nutrition will be considered, especial attention being given to infant foods and feeding, and the diseases of malnutrition. Following this the other diseases of children will be discussed and the whole supplemented by clinical illustration.

Text-books: Fisher, Tooker, Raue.

DEPARTMENT OF OPHTHALMOLOGY, OTOLOGY, RHINOLOGY, AND LARYNGOLOGY

PROFESSOR BYWATER

In this department all diseases of the eye, ear, nose, and throat are considered. For their practical study, there has been recently provided a commodious dark-room, well supplied with all the necessary apparatus. Here patients are treated by the students under the supervision of the head of the department or competent assistants. After the patient has been carefully and thoroughly examined in the clinic and the treatment outlined, he is put in charge of a student, who assists in the treatment, watching the progress of the case until the patient is discharged. In this way practical and valuable experience is gained. The student not only becomes familiar with the diseased conditions by being required to make diagnoses, but he also becomes acquainted

with the use of the instruments used in the diagnosis and treatment of cases coming under this department.

The clinics are large, and there is sufficient clinical material, so that the students have an opportunity of seeing operations on a large variety of eye, ear, nose, and throat cases.

OPHTHALMOLOGY.

Seniors and Juniors—Didactic lectures and recitations are given on the anatomy and physiology of the eye, diseases of the orbit and lachrymal apparatus, conjunctiva, schlera, cornea, and extrinsis muscles. One hour each week during the first semester.

Lectures and recitations on the internal diseases of the eye, including those of the ciliary body, iris, retina, choroid, optic nerve, lens, and vitreous body. Eye-strains, due to errors of refractions are also considered. One hour each week during the second semester.

Seniors, Juniors and Sophomores—Clinics two hours each week during the year. Cases are assigned to students for examination, diagnosis, and treatment.

OTOLOGY.

Seniors and Juniors—Lectures and recitations on the anatomy and physiology of the ear. All pathological conditions of the external, middle, and internal ears, and of the mastoid process are considered. One hour each week during the first semester.

Seniors, Juniors and Sophomores—Attendance upon clinics two hours each week is required. This is held in connection with the general eye, ear, nose and throat clinic.

RHINOLOGY AND LARYNGOLOGY.

Seniors and Juniors—Lectures on the anatomy and physiology of the nose, throat, and all accessory sinuses. Consideration of diseases of the nose, naso-pharynx, larynx, frontal sinuses, antrum, ethmoid cells, etc. One hour each week during the second semester.

Seniors, Juniors and Sophomores—Clinics two hours each week during the year in connection with the general clinic.

Seniors—Subclinic one hour each week during the year.

Use of Ophthalmoscope, Laryngoscope, Rhinoscope, etc.

The seniors are given practical instruction in the use of instruments employed in diagnoses of pathological conditions of the eye, ear, nose, and throat at stated periods throughout the year. The class is divided into sections for this work.

Text-books: *Eye*, Norton, Buffum, MacBride, Noyes; *Ear*, Winslow, Houghton, Hallett, and Dench; *Nose and Throat*, Ivins, Veshlage, Quay, Kyle, and Bishop.

CLINICS

SURGICAL CLINIC

The Surgical Clinic of this college is open to students of all the classes, but attendance is not obligatory in the freshman year. There is an abundance of clinical material. The general arrangement and clinical system are as follows: The Senior Interne at the commencement of the year details two students from the senior class as clinical assistants. One of these retires after one week's service, one after two weeks. One student is detailed each week thereafter, so that each senior student has two consecutive weeks of clinical work. The duties are to assist at all clinics and subclinics, and to attend to all dressings in the Hospital, under the supervision of the Senior Interne. This gives unusual facilities for practical instruction.

The Surgical Clinic is held on Saturday at 9:30 A. M. Professor GILCHRIST.

MEDICAL CLINIC

The Medical Clinic is open to all classes and regular attendance is required of juniors and seniors.

The first consideration in conducting this clinic is to give the student training in diagnosis and the plan adopted gives the senior student advantages equivalent to a post graduate course.

New cases as received are placed in charge of members of the senior class for examination.

A complete diagnosis must be made in writing, after which the patient is examined in open clinic and a criticism of the papers follows.

These papers are preserved and constitute an important factor in determining the student's standing.

Sub-classes under guidance of an instructor visit the homes of out-patients for the study of acute disease.

The treatment prescribed is in accordance with the established principles of homœopathy.

This clinic is held on Wednesday afternoon from two to four o'clock. Professor JOHNSTON.

MATERIA MEDICA CLINIC.

The professor of Materia Medica will hold a clinic every Thursday from 2 to 4 P. M. At this clinic a member of the senior class is requested to elicit from the patient the family and personal history; the sensations; the modalities and all concomitant symptoms. He is then required to arrange these symptoms, point out the characteristic ones and suggest a remedy. The other members of the class are also required to suggest a remedy giving their reasons for so doing from the group of symptoms which has been elicited by their classmate. The professor in charge will then differentiate between the remedies presented by the class, if there be more than one, and will determine the remedy to be administered. Professor ROYAL.

GYNECOLOGICAL CLINIC.

During the senior year two hours each week are devoted to clinics at which the students are given special advantages in the examination and diagnosis of the various diseases and injuries of the genital organs of women and assist at the various operations. The addition of this clinic to the course of instruction is of great advantage as the number of students admitted to the same is limited so as to give all present an opportunity of seeing each step in the work and thereby becoming entirely familiar with the same. Friday from 2 to 4 P. M. Professor BECKER.

OBSTETRICAL CLINIC.

By special appointment obstetrical clinics are held at which senior students are given an opportunity of diagnosing the fœtal presentations and observing the mechanism

and conduct of the various stages of labor. By special arrangement with the Board of Regents patients wanting a home prior to their confinment and proper medical attendance during the same may avail themselves of this clinic free of charge and at the same time be given all of the privacy and comforts of the homes usually provided for this special class of cases.

Any one desiring information regarding the same is asked to correspond with the professor in charge. Professor BECKER.

EYE, EAR, NOSE, AND THROAT CLINIC

In these clinics many cases are treated each year. Each member of the senior class is given many opportunities to examine patients, diagnose pathological conditions, and outline the treatment. The general clinics are held on Tuesday afternoon at one o'clock, during the school year, in the amphitheater.

Subclinics for ear, nose, and throat cases are held on Thursdays at four o'clock in the basement clinic-room. Professor BYWATER.

PAEDOLOGY

Children's clinics will be held on Monday. At these clinics the seniors are expected to examine the patients, diagnose the diseases, prescribe the proper remedies and familiarize themselves with the treatment of this class of patients which will constitute a large and important part of their future practice. Dr. HAZARD.

ADMISSION OF PATIENTS

Medical and surgical treatment are free for patients entering the general clinic. Hospital care is furnished for $5.00 to $20.00 per week.

Correspondence with reference to admission to the clinics or hospital should be had with the professor having charge of the particular clinic, or with the Director of the Hospital. Arrangements can be made for the reception of a limited number of obstetrical cases *only* between the 15th of September and the 15th of April.

DISPENSARY

In connection with the clinic a dispensary has been opened, where the clinical assistants, under the direction of the faculty, prescribe for and visit out-patients, and attend such cases of obstetrics as apply. The dispensary is growing in patronage and influence, and has become a highly important and profitable portion of work, affording at once material for the clinics and practical instruction to the attendant.

REQUIREMENTS FOR GRADUATION

1. The candidates must be twenty-one years of age.

2. Moral character must be known to be unexceptionable.

3. The time of study must include attendance upon at least four full courses of lectures, the last of which must be taken in this institution. The time occupied by each of the four courses of lectures shall be not less than thirty-nine weeks, and no two of the four courses shall be within the same year.

4. The deportment during the term must have been unexceptionable.

5. Attendance upon all lectures, clinics, and other instruction in the course must have been in accordance with the requirements of the College.

In case of failure to pass any of the examinations the student may be re-examined at the opening of the next session. If he fail in this second examination he will be allowed to present himself for re-examination only after attendance upon another course of lectures.

Students of the senior class who are candidates for the degree of Doctor of Medicine must, before May first, present to the Secretary of the Faculty a certificate of legal age and of good moral character, also the receipts from the Treasurer of the Board of Regents showing that all fees have been paid.

BOARD AND ACCOMMODATOINS

Good board can be obtained at from $2 to $4 a week. By associating in clubs, students may supply themselves with good accommodations at a material reduction from the customary prices.

Students will be furnished with all necessary information concerning rooms and board by applying to the Y. M. C. A. Information Bureau.

TUITION—FEES

The fee for tuition is sixty-five dollars ($65) for each year, forty dollars to be paid at matriculation and registry, and twenty-five dollars at the commencement of the second semester. There are no extra fees whatever, but for each laboratory course in chemistry there is required a deposit of $3 to cover breakage and to insure the return of all keys at the close of the session. This sum (breakage, if any, deducted) is returned to the student.

The combined courses in which the degrees of B. S. or B. Ph., and M. D., are secured in six years, require three years in the College of Liberal Arts, for which the fee is $25 a year. On completion of the junior year the student enters the College of Homœopathic Medicine, and the fee is $65 for each year in which the student carries work in this College.

Students who do not pay the proper fees will be suspended from the College until such fees are paid.

HOMŒOPATHIC ALUMNI ASSCCIATION

The Alumni Association held its twelfth annual meeting at the College Building, April 1, 1902, at which time the following officers were elected.

President—L. W. STRUBLE, West Liberty.
First Vice-President—F. O. RICHARDS, Winterset.
Second Vice-President—E. C. KAUFFMAN, Union.
Secretary—LEORA JOHNSON, Iowa City.
Treasurer—W. L. BYWATER, Iowa City.
Executive Committee—PRESIDENT, SECRETARY, and TREASURER.

Alumni are urged to send their names to the Secretary to be enrolled as members. A small admission fee is required, the funds so procured to be devoted to the Hospital according to a vote taken at the last meeting. Alumni are requested to keep the Secretary informed of change of address.

Any further information may be obtained by addressing George E. MacLean, Ph. D., LL. D., President of the University, or W. L. Bywater, M. D., Secretary of the Homœopathic Medical Faculty, at Iowa City, Iowa, or George Royal, M. D., Dean of the College, at Des Moines, Iowa.

COURSE OF INSTRUCTION

First year.

Histology
Physiology
Anatomy
Chemistry—organic and analysis
Organon
Homœopathic pharmacy
Materia medica
Minor surgery

Second year.

Physiology
Anatomy
Physiological chemistry
Pathology
Materia medica
Physical diagnosis
Surgical emergencies

Third year.

Toxicology
Rhinology and Laryngology
Surgical emergencies, continued
Principles and practice of surgery
Theory and practice of medicine
Bacteriology
Obstetrics

Gynecology
Dermatology
Materia medica
Genito Urinary diseases

Fourth year.

Pædology
Ophthalmology and Otology
Materia medica and therapeutics
Obstetrics—continued
Gynecology—continued
Principles and practice of surgery—continued
Theory and practice of medicine—continued
Medical jurisprudence
Insanity
Electricity
Venereal diseases.

SCHOOL FOR NURSES

A Training School for Nurses has been established by the Board of Regents, the complete course covering three years. The first year is devoted to preliminary studies fitting the pupil for the active work, that is, as nurses in the Hospital. Candidates for admission to the Training School must be not under twenty nor over thirty-five years of age, must have a common school education, and must make a written application to the Superintendent on forms prepared for the purpose and furnished on application. No other examination is required. If admitted, their first month will be probationary, and if the work has been satisfactory they will be entered upon the roll as "Freshman Nurses," and receive $5.00 a month for personal expenses, together with board, lodlging and laundry. Vacations are given, during the year, at east, one month out of twelve, with additional vacation at the discretion of the superintendent. On admission the pupil will be required to agree in writing, over her signature, to observe the rules and regulations of the Hospital. The instruction during this year is largely didactic in a carefully arranged course of lectures. Examinations for promotion to the junior year will be held in May. During the junior or second year in addition to their practical work, the nurses will have one recitation each week, and in the third year special topics for essays will be arranged. During the second year the Nurses will receive $8 a month for personal expenses, with an increase to $10 for the third year. Those who complete the three years' course will receive a suitable certificate signed by the President of the University and by the Secretary of the Board of Regents. The graduating exercises occur in connection with those of the University. For further information address the Superintendent, Homœopathic Hospital of the University.

Programme of the College of Homœopathic Medicine, State University of Iowa, 1903-1904.

FRESHMAN YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Physiology	Histology	Physiology	Histology	Histology Recitation	Anatomy
9 to 10	Chemistry	Physiology	Chemistry	Anatomy	Histology	Minor Surgery
10 to 11	Anatomy	Anatomy	10:00to 12:00 *Chemical Laboratory*	Organon	Chemistry	
11 to 12						
1 to 2	1:00 to 3:00 *Histological Laboratory*	1:00 to 3:00 *Chemical Laboratory*		1:00 to 3:00 *Histological Laboratory*	Materia Medica	
2 to 3						
3 to 4	3:15 to 5:45	3:15 to 5:45	3:15 to 5:45	3,15 to 5:45	3:15 to 5:45	
4 to 5	*Anatomical Laboratory*	*Anatomical Laboratory*	*Anatomical Laboratory*	*Anatomical Laboratory*	*Anatomical Laboratory*	

SOPHOMORE YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Physical Diagnosis	Anatomy		Pathology	Anaesthesia	
9 to 10	Pathology Recitation	Physiological Chemistry	Physiology	Physiology	Physiological Chemistry	
10 to 11	Physiology Recitation	Surgery	Anatomy	Anatomy	Anatomy	9:30 to 12:00 Surgical Clinic
11 to 12	Surgery			Materia Medica		
1 to 2	1:00 to 3:00 *Physiological Chemical Laboratory*	1:00 to 3:00 *Pathological Laboratory*	1:00 to 3:00 *Physiological Laboratory*		Materia Medica	
2 to 3					Materia Medica Recitation	
3 to 4	3:15 to 5:45	3:15 to 5:45	3:15 to 5:45	3:15 to 5:45	3:15 to 5:45	
4 to 5	*Anatomical Laboratory*	*Anatomical Laboratory*	*Anatomical Laboratory*	*Anatomical Laboratory*	*Anatomical Laboratory*	

JUNIOR YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Otology	Surgery	Ophthal-mology	Materia Medica	Pathology	
9 to 10	Practice		Practice		Surgery	
10 to 11	Gynecol'gy	Surgery		Pathology	Practice	9:30 to 12:00 *Surgical Clinic*
11 to 12	Surgery	Obstetrics	Toxicology	Materia Medica	Pathology Recitation	
1 to 2	1:00 to 3:00 *Pathologic'l Laboratory*	*Eye, Ear, Nose and Throat Clinic*	Materia Medica			
2 to 3			*Medical Clinic*	*Materia Medica Clinic*	*Gynecolog-ical Clinic*	
3 to 4	Surgery	Practice				
4 to 5				*Ear, Nose and Throat Clinic*		

SENIOR YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Otology	Surgery	Ophthal-mology	Materia Medica		
9 to 10	Practice		Practice	Materia Medica	Dermatol-ogy	
10 to 11	Pedology	Surgery	Clinical Micro-scopy		Surgery	9:30 to 12:00 *Surgical Clinic*
11 to 12	Surgery			Obstetrics		
1 to 2	Gynecol'gy	Eye, Ear, Nose and Throat Clinic	Materia Medica	*Materia Medica Clinic*	*Gynecolog-ical Clinic*	
2 to 3	Surgery		*Medical Clinic*			
3 to 4	Surgery	Practice				
4 to 5						

THE COLLEGE OF DENTISTRY

THE COLLEGE OF DENTISTRY

MEMBERS OF THE FACULTY AND OTHER OFFICERS

GEORGE EDWIN MACLEAN, PH. D., LL. D.,
President of the University.

FRANK THOMAS BREENE, M. D., D. D. S.,
Professor of Operative Dentistry, and Therapeutics, and Superintendent of Operative Clinic.

WILLIAM S. HOSFORD, B. A., D. D. S.,
Professor of Prosthetic Dentistry, Crown and Bridge Work, Superintendent of Prosthetic Clinic, and Dean of the Faculty.

E. A. ROGERS, D. D. S.,
Professor of Dental and Regional Anatomy, and Clinical Demonstrator.

WILLIAM J. BRADY, D. D. S.,
Professor of Orthodontia, and Demonstrator of Dental Technology.

ELBERT WILLIAM ROCKWOOD, M. A., M. D.,
Professor of Chemistry and Metallurgy.

WALTER LAWRENCE BIERRING, M. D.,
Professor of Pathology and Bacteriology.

CHARLES SUMNER CHASE, M. A., M. D.,
Professor of Materia Medica and Therapeutics.

WILLIAM ROBERT WHITEIS, M. S., M. D.,
Professor of Histology.

JOHN W. HARRIMAN, M. D.,
Professor of Anatomy.

JOHN F. MCCLINTOCK, M. D.,
Professor of Physiology.

G. V. I. BROWN, M. B., M. D., D. D. S., C. M.,
Lecturer on Oral Pathology, Oral Surgery, and Oral Hygiene.

CHARLES CLEVELAND NUTTING, M. A.,
Lecturer on Comparative Odontography.

JUDGE EMLIN MCCLAIN, M. A., LL. D.,
Lecturer on Dental Jurisprudence.

CHARLES R. BAKER, D. D. S.,
Special Lecturer on Ceramics.

CHARLES FREDERICK CLARKE, M. A., M. D.,
Lecturer on General Hygiene.

ADELBERT W. STARBUCK, D. D. S.,
Demonstrator of Operative Technic, and Clinical Demonstrator.

HENRY MORROW, JR., D. D. S.,
Assistant Clinical Demonstrator, and Demonstrator of Dental Technology.

GEORGE P. KIER, D. D. S.,
Clinical Demonstrator.

ROSCOE H. VOLLAND, D. D. S.,
Assistant Demonstrator of Dental and Technology and Clinical Dentistry.

BERTON A. SMALL, D. D. S.,
Assistant Demonstrator of Operative Technics and Clinical Dentistry.

WILLIAM J. JEFFERS, D. D. S.,
Assistant Demonstrator of Dental Technology, and Clinical Dentistry.

JAMES B. DEWEY, D. D. S.,
Assistant Clinical Demonstrator.

CHARLES WILLIS JOHNSON, B. S., Ph. C.,
Instructor in Chemistry.

LEWIS D. NILES, M. D., B. S.,
Instructor in Chemistry.

FRANK NEWTON BRINK, M. S.,
Instructor in Chemistry.

JOHN PATRICK MULLIN, M. D.,
Professor of Anatomy.

THEODORE WILBERT KEMMERER, M. S., M. D.,
Demonstrator of Pathology and Bacteriology.

CHARLES P. LAMBERT, B. S.,
Fellow iu Pathology and Bacteriology.

HENRY ALBERT, B. S.,
Fellow in Pathology.

CHARLES SCHUTZ KROUSE, B. S.,
Scholar in Pathology and Bacteriology.

FRED W. BAILEY, B. S.,
Assistant Instructor in Physiology.

CHARLES LEONARD SMITH, B. A.,
Scholar in Histology.

ALDEN ROBBINS HOOVER,
Assistant in Histology.

FREDERICK WARNER BOOTS,
Undergraduate Assistant in Histology.

GEORGE P. KIER, D. D. S.,
Assistant in Histology.

EDWARD ELLSWORTH BLYTHE,
Assistant in Histology.

JOHN LEALAND TAYLOR,
Undergraduate Demonstrator of Anatomy.

HENRY DELEVAN HOLMAN,
Undergraduate Demonstrator of Anatomy.

C. T. WRIGHT,
Custodian.

HELEN BASCHNAGEL,
Clerk.

CLARISSA JOY,
Assistant Clerk.

THE COLLEGE OF DENTISTRY

The College of Dentistry (formerly known as the Dental Department) offers a course of study based upon a broad and liberal conception of the position of dentistry among the healing arts. The fundamental studies of medicine are combined with those of dentistry proper, thus giving a substantial foundation for comprehensive study of the whole subject with all its related branches, and affording a basis for further medical and surgical attainments.

The practical study of dentistry is amply provided for, both by means of abundant clinical practice and a systematic and thorough preliminary training in the laboratories through the technic work. The method of instruction is by lectures, recitations, demonstrations, and the actual performance of laboratory and clinical work by the student himself under the supervision of competent demonstrators.

The course extends through four years of thirty-six weeks each. The sessions are divided into two semesters of eighteen weeks each, and each semester into two terms of nine weeks.

The twenty-third annual session begins September 24, 1903, and ends June 15, 1904.

All students in attendance prior to February 10, 1903, will be classified according to the three year curriculum.

BUILDINGS AND EQUIPMENT

The College of Dentistry was organized and held its first session in 1881. The growing importance of the Department led to the erection in 1894 of a building for its exclusive use. These quarters have been most excellently equipped for teaching and are unsurpassed in convenience. Each student has his own locker and table in the laboratories, his seat in the lecture rooms, and his chair and cabinet in the clinic rooms, which are reserved for him throughout the entire year.

The laboratories are well lighted, each table having a large window. All the usual appliances are provided, including electric lathes for polishing.

The lecture rooms are commodious, well lighted and ventilated, and comfortably seated.

The operating rooms are exceptionally well lighted, and equipped throughout with Wilkerson and Columbia chairs, each chair being provided with fountain spittoon and a Harvard cabinet for instruments.

A special department of the general library is maintained in the building, accessible at all times. Students also have all the privileges of the general University library.

The College is equipped with a Colt & Co.'s electric stereopticon, which is a valuable addition to the teaching equipment.

The College of Dentistry is a member of the National Association of Dental Faculties, and abides by all its rules and regulations. The College also observes all the rules of the National Association of Dental Examiners.

REQUIREMENTS FOR ADMISSION

Each applicant for admission must present satisfactory evidence of good moral character. Students of both sexes are admitted on equal terms.

Graduates or matriculates of reputable Universities or colleges, and graduates of state normal schools or accredited high schools and academies, may be admitted without examination to the first year class on presentation of diplomas or certificates of honorable dismissal.

Graduates of other high schools or academies whose courses of study are approved by the University, or pupils who have completed *at least two years* of work in such schools or in accredited schools, will be admitted without examination on presenting certificates, signed by the Superintendent or the Principal, and containing specific statements as to the amount of work done in each study. Two years of work must include *sixteen* (*16*) preparatory credits, *a preparatory credit being defined as the equivalent of one high school study five days a week during a semester, eighteen weeks in length, on the basis of four studies a day.* These preparatory credits

must be certified by the Superintendent or the Principal of the school from which the applicant comes, on the blank form inserted in this Announcement, or on a similar blank which can be obtained by addressing the President of the University, the Dean of the College of Dentistry, or the University Examiner.

All other applicants for admission must pass examinations in the subjects designated in the programme of entrance examinations given below, or other subjects which are real equivalents.

Applicants presenting certificates from accredited schools for work not fully meeting the requirements for admission, will be examined in the subjects in which they are deficient.

It is urged that anyone expecting to enter the College of Dentistry next September send all necessary credentials to the University Examiner *as early in the summer as possible, and certainly before September 1.* If the credentials are satisfactory a card of admission will be sent to the applicant at once. Upon arriving in the city he should present this card to the Dean for signature.

ENTRANCE EXAMINATIONS

Any person expecting to enter the College of Dentistry in September, 1903, should be careful to learn before the opening of the University exactly what entrance examination he will be required to pass. He can learn this by addressing the President of the University, the Dean of the College of Dentistry, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given below.* He should present himself at once at the office of the University Examiner, who will give him all necessary directions.

PROGRAMME OF ENTRANCE EXAMINATIONS

Tuesday, September 22, and Wednesday, September 23, 1903.

Arithmetic,	1 credit,	Monday	1:30 p. m.
English and Eng. Grammar	2 credits,	Tue., 11:00 a. m. and 4:30 p. m. Wed., 11:00 a. m. and 4:30 p. m.	

United States History,	1 credit,	Tuesday,	1:30 p. m.
Civil Government,	1 credit,	Tuesday,	2:30 p. m.
Algebra, through Quadratics	3 credits,	Wednesday,	8:00 a. m.
Physical Geography,	1 credit,	Wednesday,	11:00 a. m.
Botany,	1 credit,	Wednesday,	3:00 p. m.
Physiology,	1 credit,	Wednesday,	4:00 p. m.

For *each separate* examination given at any other time than that announced in the above programme a fee of *one dollar* will be charged by the University. For a series of two or more examinations a fee of *two dollars* will be charged.

Extract from Code of Rules of the National Association of Dental Faculties Regulating the Admission of Students.

PRELIMINARY EXAMINATION

1. The following preliminary examination shall be required of students seeking admission to colleges of this Association:—

The minimum preliminary educational requirement of colleges of this Association, beginning with the session of 1902–1903, shall be a certificate of entrance into the third year of a high school, or its equivalent. The preliminary examination is placed in the hands of the State Superintendent of Public Instruction, or his appointee, Mr. C. H. Dorcas, University Examiner.

LIMITING THE TIME FOR THE RECEPTION OF STUDENTS

2. No member of this Association shall give credit for a full course to students admitted later than ten days after the opening day of the session, as published in the announcement.

3. In case one is prevented by sickness, properly certified to by a reputable practicing physician, from complying with the foregoing rule, the time of admission shall not be later than twenty days from the opening day.

4. That students in attendance at Colleges of this Association, to obtain credit for a full term, must be and remain in attendance until the close of the session.

ADMISSION TO ADVANCED GRADES ON CERTIFICATES

The colleges of this Association may receive into the advanced grades of juniors and seniors only such students as hold certificates of having passed examinations in the studies of the freshman or junior grades respectively. All students who have successfully passed their examinations for advanced standing shall have their certificates given or mailed to them within *thirty days* after such examinations shall have been completed. Such certificates to be pledges to any college of the Association to whom the holders may apply, that the requisite number of terms have been spent in the institutions by which the certificates were issued.

STANDING OF STUDENTS HOLDING CERTIFICATES FROM DENTAL COLLEGES IN FOREIGN COUNTRIES

In case of persons holding certificates from colleges of dentistry in foreign countries, they shall be required to furnish properly attested evidence of study, attendance upon lectures, examinations passed satisfactorily, etc., just as is required of students coming from our own institutions.

ADVANCED STANDING AND ADMISSION OF GRADUATES OF MEDICINE

Advanced standing in the classes of members of this Association shall not be given students except in the following instances:—

First. Where student shall have taken a full course in a school a member of this Association, or one especially recognized, and shall have successfully passed the required examinations.

Second. When the student shall present evidence of graduation from a reputable medical college, he may receive one year's advanced standing.

A graduate of a recognized dental college, who applies to a college of this Association for the degree of Doctor of Dental Surgery or Doctor of Dental Medicine, shall complete one full course of instruction in said college and comply with all other requirements of the senior class.

SCHEDULE OF STUDIES*

Studies marked A are completed the year so marked; those marked B continue through more than one year.

FRESHMAN YEAR

A. Chemistry, lectures.
A. Chemistry, laboratory.
A. Histology, lectures.
A. Histology, laboratory.
A. Dental Anatomy.
A. Comparative Anatomy, with dissection.
A. Prosthetic Technic.
B. Prosthetic Dentistry, lectures.
B. Operative Technic.
B. Anatomy.
B. Physiology.

JUNIOR YEAR

A. Anatomy, with dissection.
A. Physiology.
A. Metallurgy, lectures.
A. Metallurgy, laboratory.
A. Operative Technic.
A. Crown and Bridge Technic.
A. Orthodontia Technic.
A. Special Histology.
A. Therapeutics.
B. Operative Dentistry.
B. Prosthetic Dentistry.
B. Clinical Dentistry.
B. Orthodontia.
B. General Pathology.
B. Oral Pathology and Hygiene.

*The new schedule of studies for the freshman and sophomore years will be announced at a later date.

SENIOR YEAR

A.	General Hygiene.	A.	Special Therapeutics.
A.	Oral Pathology and Hygiene.	A.	Orthodontia.
		A.	Oral Surgery.
A.	General Pathology and Bacteriology.	A.	Operative Dentistry.
		A.	Prosthetic Dentistry.
A.	Practical Bacteriology.	A.	Clinical Dentistry, Operative and Prosthetic.
A.	Jurisprudence.		
A.	Regional Anatomy.	A.	Clinical Surgery.

All students of the first and second years will be required to pass an examination on the studies pursued in their respective courses before leaving the University at the close of each term. No student who has failed in two of the studies of his course will pass to advanced standing unless these studies are made up before the second week in January of the succeeding session. No certificates are given to any who fail in more than two branches, except a time certificate stating the actual time of attendance.

Examination in conditioned studies will take place the following session, namely, the fourth week in September and the second week in January.

COMBINED COURSES LEADING TO DEGREES IN DENTISTRY AND IN SCIENCE OR THE ARTS

Arrangements have been made with the faculty of the College of Liberal Arts by which it will be possible for a student to complete the course in Science and the course in Dentistry in six years, thereby attaining the degrees of B. S. and D. D. S.

A student electing the Classical or Philosophical course in the College of Liberal Arts, may obtain the degree of B. A. or B. Ph. and D. D. S. in the same length of time by electing the required science of the scientific course during the years of his undergraduate course in the College of Liberal Arts and taking the course in Dentistry as prescribed in the following combined course.

REQUIREMENTS FOR ADMISSION TO THE COMBINED DENTAL AND CLASSICAL, OR DENTAL AND PHILOSOPHICAL COURSE

1.	Latin, or modern language*	8 credits
2.	English, or Literature,	8 credits
3.	History (may include Civics),	4 credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 credits
5.	Plane and Solid Geometry,	3 credits
6.	Science,	2 credits
7.	Greek, or Electives,	2 credits
	Total,	30 credits

REQUIREMENTS FOR ADMISSION TO THE COMBINED DENTAL AND SCIENTIFIC COURSE

Another excellent course leads to the degrees of B. S. and D. D. S. This course may also be completed in six years. The admission requirements are as given below:

1.	Latin, or German, or French,	4 credits
2.	English and Literature,	8 credits
3.	History (may include Civics),	4 credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions	3 credits
5.	Plane and Solid Geometry,	3 credits
6.	Science,	2 credits
7.	Electives, (*additional* accreditable work in foreign language, English, History, or Science),	6 credits
	Total,	30 credits

For detailed statement of the requirements for admission, see the latest Announcement of the College of Liberal Arts.

* Either four years of Latin, or two years in each of two modern languages, will be accepted.

COMBINED COURSE LEADING TO THE DEGREES OF B. S. AND D. D. S.

First Year

German—*5
Mathematics—5
Drawing—3
English—2
Military Drill—3

Second Year

German—3
English—2
Physics—5
Zoology—5
Animal Physiology—2
Military Drill—3

Third Year

Botany—5
Chemistry—5
Animal Morphology, advanced—5
Military Drill—3

Fourth Year

Freshman Dental
French—10 hours in College of Liberal Arts.

Fifth Year

Junior Dental
Elective, of 10 hours in College of Liberal Arts

Sixth Year

Senior Dental

COMBINED COURSE LEADING TO THE DEGREES OF M. D. AND D. D. S.

Students may arrange to obtain the degrees of Doctor of Medicine and Doctor of Dental Surgery in six years. Details must be arranged by the Faculty. The requirements for admission to the combined course leading to the degrees M. D. and D. D. S. are the same as the requirements for admission to either of the two Colleges of Medicine. They are as follows: 24 preparatory credits, including at least one year of Latin, one preparatory credit being given for the successful pursuit of one high school or academy study during a semester eighteen weeks in length, with five recitation periods a week on the basis of four studies a day.

* The figures indicate the number of exercises a week. For a full statement regarding courses in College of Liberal Arts see University Calendar.

Students taking combined courses under four year curriculum will add one more year to above course of study, see Dean of College for particulars.

OUTLINE OF THE PLAN OF INSTRUCTION

DEPARTMENT OF OPERATIVE DENTISTRY AND DENTAL THERAPEUTICS

PROFESSOR BREENE; DR. ROGERS, DR. KIRK, DR. STARBUCK, DR. SMALL

The course in operative dentistry, including operative technic, extends through the freshman, junior, and senior years. The clinical facilities for instruction in this department give the student an opportunity to receive thorough drill of a practical kind that can be utilized in the practice of dentistry.

To restore teeth which have become diseased or deformed by formative chemical or mechanical means to a normal or functional condition is the ideal of operative dentistry.

To facilitate the bringing of the student to the point of recognizing and accomplishing this ideal of dental art, instruction in the detail of all operations upon the teeth is given in the technical laboratory, infirmary, and by lectures.

The course in operative technic is supplementary to lectures and laboratory work in dental anatomy of the freshman year. It is a preliminary training for clinical dentistry procedure. Every effort is put forth by the instructors in charge to make this work practical.

Each student carves from bone or celluloid blocks a number of teeth which are mounted in dummy jaws. Cavities of decay are outlined on these teeth. The student is required to prepare cavities for insertion of fillings, following the modern methods of cavity preparation.

Fillings of gold, amalgam, cement and guttapercha, also inlays of gold and porcelain, are introduced in cavities ormed. Special attention is given to restoration of type

and contact in relation to approximation and apposition. Thus the objective results (functional improvement) are fully demonstrated.

OUTLINE OF LECTURE COURSE

History of dentistry, care of patients, examination of teeth, use and disinfection of instruments and other appliances, removal of deposits and cleaning of the teeth, general hygiene of the mouth, methods of securing separation of teeth, preparation of cavities, selection and characteristics of filling materials, inlays—gold and porcelain.

Junior and senior years, first and second semester, three hours each week. PROFESSOR BRENE.

For information as to the plan of instruction in Dental Therapeutics, see Department of Materia Medica and Therapeutics.

DENTAL ANATOMY AND OPERATIVE TECHNIC

LABORATORY TECHNIC—In the laboratory work each student is required to carve from blocks of bone teeth of each class: i. e., incisors, cuspids, bicuspids and molars, and to mount them in models on an articulator; to make free hand drawings of the individual teeth; to make various dissections of the natural teeth for the study of the pulp chambers and root canals.

Freshman year, first semester and first term of second semester. One laboratory period each week.

INSTRUMENTATION — Instrument nomenclature; instrument making; study of enamel cleavage and the cutting of tooth structure, using extracted teeth.

Freshman year, second semester. Two laboratory periods each week.

CAVITY PREPARATION AND FILLING—Study of filling materials and appliances used in operative work. Preparation of cavities and insertion fillings. Study of pulp chambers and canals, and insertion of root-canal fillings.

Junior year, first semester. Four laboratory periods each week. DR. STARBUCK, DR. SMALL.

DEPARTMENT OF PROSTHETIC DENTISTRY

PROFESSOR HOSFORD; DR. BRADY, DR. MORROW, DR. VOLLAND, DR. JEFFERS, DR. DEWEY

This course is graded and extends throughout the freshman, junior, and senior years. This subject is presented by means of lectures, recitations, demonstrations, clinical and laboratory work.

1. IMPRESSIONS, MODELS, DIES AND COUNTER DIES—This course is didactic and illustrated from practical cases, charts, and lantern slides.

Two lectures and one recitation a week, first term, first semester.

2. DENTURES—Full upper and lower, also partial dentures, on various bases such as vulcanite, gold, aluminum, celluloid, and porcelain.

It is the aim to teach not only the mere mechanical processes in these several courses, but also that combination of art with mechanism which enables the practitioner to effect so much in restoring the symmetry of the face and the usefulness of the teeth when they have been lost or impared by accident or disease.

Two lectures, one recitation a week, first semester, second term.

3. CROWN AND BRIDGE WORK—This course consists in the consideration didactically and practically in the infirmary of the making and application of the various kinds of crowns and bridges.

Two lectures, one recitation a week, second semester, third term.

4. CERAMICS AND CLEFT PALATE—The course in Porcelain embraces the consideration of the Ceramic art in the various practical uses in crown, bridge, and continuous gum work, also the uses of the different kinds of porcelain furnaces.

Cleft palate is treated didactically and from a mechanical standpoint in the infirmary. The surgical cases are referred to the chair of oral surgery. Professor HOSFORD.

5. FRESHMAN PROSTHETIC DENTISTRY—A didactic anp laboratory course including the principles and methods of taking impressions, pouring models. The making of dies and counter dies. The making of different styles of dentures on bases of vulcanite, aluminum and goldine. Vulcanizing, repairing and finishing of cases made. Laboratory work, six hours each week from September to June; and one lecture each week. Dr. MORROW, Dr. JEFFERS.

6. JUNIOR PROSTHETIC DENTISTRY—A didactic and laboratory course embracing the principles and their application in the making of the various kinds of crowns and bridges on models secured from practical cases.

The laboratory work consists of twelve hours each week, first semester, two lectures and one recitation each week for thirty-six weeks.

This course is supplemented by actual clinical experience from January to June. Professor HOSFORD, Dr. BRADY, Dr. VOLLAND.

7. SENIOR PROSTHETIC DENTISTRY—A didactic, recitation, and clinical course for senior students from September to June. Each senior student is required to perform a certain amount of prosthetic work in the infirmary to prove his or her efficiency in this subject. The large clinical attendance furnishes every facility to the student to meet every requirement.

Two lectures and one recitation each week, for thirty-six weeks.

8. INFIRMARY HOURS, twenty-seven each week. Professor HOSFORD, Dr. MORROW, Dr. VOLLAND, Dr. JEFFERS, Dr. DEWEY.

DEPARTMENT OF ORAL PATHOLOGY, ORAL SURGERY, AND HYGIENE

DR. G. V. I. BROWN

ORAL SURGERY.

Operative, therapeutic and mechanical treatment of diseases and deformities of the mouth, face, and jaws will be considered with careful distinction between those affections

best suited for reference to dentists, medical practitioners, and general or oral surgeons.

The divisions and special features of this course will be as follows:

(1.) Study of differential diagnosis through which the true etiologic factors of many more or less obscure pathologic conditions may often be determined, and quite frequently found to have their origin from oral disturbances not difficult to relieve, and thus by comparatively simple measures, make it possible to give almost incalculable benefit to patients.

(2.) *General considerations*—Health, disease, pulse, respiration, conditions favorable and unfavorable to operation, shock. Asepsis, preparation of patient for operation, care of hands, instruments, dressings, etc.

(3.) *Wounds*—Varieties and treatment, bandages, dressings, processes of tissue repair. Hemorrhage, different forms and methods of checking. Ligatures and sutures, various materials used, methods of preparation and application. Surgical aspect of inflammation, suppuration, abscess, ulcer, necrosis, caries, gangrene. Aseptic fever, septic fever, septicemia, pyemia. Pernicious anemia, leucothemia, digestive and nutritive disturbances. Erysiplas, tetanus.

(4.) *Affections of the Maxillæ* — Periostitis, necrosis, tuberculosis, syphilis. Fractures, dislocation, anchylosis. Diseases of the maxillary sinus.

(5.) *Diseases of the mucous membrane*—Stomatitis, gangrena oris, specific disease, mucous cysts, etc.

Diseases of the salivary glands — Parotitis, ptyalism, inflammatory conditions due to calculi, fistulæ, ranula.

(6.) Neuralgia, epilepsy, muscular spasm, paralysis. Neurasthenia and other neuroses, related to tri-facial irritation. Hare lip and cleft palate, speech defects.

(7.) *Tumors* — Those malignant and non-malignant growths which most frequently affect the jaws and mouth will be chiefly considered.

All of the foregoing pathologic conditions are comprehended within the special field to which the practice of the instructor is limited. Experience in hospitals having given a somewhat extensive opportunity for observation, it is possible to deal with each division from the standpoint of actual practice. Blood counts, microscopic sections of tissue, tumors, etc., and other data necessary for illustration and reference have been preserved from patients treated. Thus it is believed more benefit will accrue to the student than is usually possible where books alone must be depended upon for guidance.

Large numbers of casts of mouths of patients, from the newly born to adult and middle life, having congential or acquired clefts of both hard and soft palates, hare lip deformities, double and single in almost every degree, as well as photographs and phonographic speech records before and after operative treatment will be used to convey correct ideas of the possibilities and limitations in this direction.

ORAL PATHOLOGY

The importance of this branch of study will be brought directly to the members of the class through illustration with photo-micrographs prepared for use in the stereopticon, and microscopic sections showing a very considerable number of pathologic changes in the histologic structure of the organs and tissues, within or intimately associated with the special operative field of dental, and oral surgery. Many of these have been taken from cases of known history, and are therefore best calculated to impress the essentially practical features of the subject. Skiagraphs, charts and drawings will also be used to supplement didactic lectures and clinical study of patients.

DISEASES OF THE DENTAL ORGANS

Teeth—Perversions of eruptive developmental processes. Dental caries, erosion and abrasion, discoloration.

Dental Pulp—Hyperemia, pulpitis, devitalization, gangrene, secondary dentine, pulp modules, polypi.

must be certified by the Superintendent or the Principal of the school from which the applicant comes, on the blank form inserted in this Announcement, or on a similar blank which can be obtained by addressing the President of the University, the Dean of the College of Dentistry, or the University Examiner.

All other applicants for admission must pass examinations in the subjects designated in the programme of entrance examinations given below, or other subjects which are real equivalents.

Applicants presenting certificates from accredited schools for work not fully meeting the requirements for admission, will be examined in the subjects in which they are deficient.

It is urged that anyone expecting to enter the College of Dentistry next September send all necessary credentials to the University Examiner *as early in the summer as possible, and certainly before September 1.* If the credentials are satisfactory a card of admission will be sent to the applicant at once. Upon arriving in the city he should present this card to the Dean for signature.

ENTRANCE EXAMINATIONS

Any person expecting to enter the College of Dentistry in September, 1903, should be careful to learn before the opening of the University exactly what entrance examination he will be required to pass. He can learn this by addressing the President of the University, the Dean of the College of Dentistry, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given below.* He should present himself at once at the office of the University Examiner, who will give him all necessary directions.

PROGRAMME OF ENTRANCE EXAMINATIONS

Tuesday, September 22, and Wednesday, September 23, 1903.

Arithmetic,	1 credit,	Monday	1:30 p. m.
English and Eng. Grammar	2 credits,	Tue., 11:00 a. m. and 4:30 p. m.	
		Wed., 11:00 a. m. and 4:30 p. m.	

United States History,	1 credit,	Tuesday,	1:30 p. m.
Civil Government,	1 credit,	Tuesday,	2:30 p. m.
Algebra, through Quadratics	3 credits,	Wednesday,	8:00 a. m.
Physical Geography,	1 credit,	Wednesday,	11:00 a. m.
Botany,	1 credit,	Wednesday,	3:00 p. m.
Physiology,	1 credit,	Wednesday,	4:00 p. m.

For *each separate* examination given at any other time than that announced in the above programme a fee of *one dollar* will be charged by the University. For a series of two or more examinations a fee of *two dollars* will be charged.

Extract from Code of Rules of the National Association of Dental Faculties Regulating the Admission of Students.

PRELIMINARY EXAMINATION

1. The following preliminary examination shall be required of students seeking admission to colleges of this Association:—

The minimum preliminary educational requirement of colleges of this Association, beginning with the session of 1902–1903, shall be a certificate of entrance into the third year of a high school, or its equivalent. The preliminary examination is placed in the hands of the State Superintendent of Public Instruction, or his appointee, Mr. C. H. Dorcas, University Examiner.

LIMITING THE TIME FOR THE RECEPTION OF STUDENTS

2. No member of this Association shall give credit for a full course to students admitted later than ten days after the opening day of the session, as published in the announcement.

3. In case one is prevented by sickness, properly certified to by a reputable practicing physician, from complying with the foregoing rule, the time of admission shall not be later than twenty days from the opening day.

4. That students in attendance at Colleges of this Association, to obtain credit for a full term, must be and remain in attendance until the close of the session.

ADMISSION TO ADVANCED GRADES ON CERTIFICATES

The colleges of this Association may receive into the advanced grades of juniors and seniors only such students as hold certificates of having passed examinations in the studies of the freshman or junior grades respectively. All students who have successfully passed their examinations for advanced standing shall have their certificates given or mailed to them within *thirty days* after such examinations shall have been completed. Such certificates to be pledges to any college of the Association to whom the holders may apply, that the requisite number of terms have been spent in the institutions by which the certificates were issued.

STANDING OF STUDENTS HOLDING CERTIFICATES FROM DENTAL COLLEGES IN FOREIGN COUNTRIES

In case of persons holding certificates from colleges of dentistry in foreign countries, they shall be required to furnish properly attested evidence of study, attendance upon lectures, examinations passed satisfactorily, etc., just as is required of students coming from our own institutions.

ADVANCED STANDING AND ADMISSION OF GRADUATES OF MEDICINE

Advanced standing in the classes of members of this Association shall not be given students except in the following instances:—

First. Where student shall have taken a full course in a school a member of this Association, or one especially recognized, and shall have successfully passed the required examinations.

Second. When the student shall present evidence of graduation from a reputable medical college, he may receive one year's advanced standing.

A graduate of a recognized dental college, who applies to a college of this Association for the degree of Doctor of Dental Surgery or Doctor of Dental Medicine, shall complete one full course of instruction in said college and comply with all other requirements of the senior class.

SCHEDULE OF STUDIES*

Studies marked A are completed the year so marked; those marked B continue through more than one year.

FRESHMAN YEAR

A.	Chemistry, lectures.	A.	Prosthetic Technic.
A.	Chemistry, laboratory.	B.	Prosthetic Dentistry, lectures.
A.	Histology, lectures.	B.	Operative Technic.
A.	Histology, laboratory.	B.	Anatomy.
A.	Dental Anatomy.	B.	Physiology.
A.	Comparative Anatomy, with dissection.		

JUNIOR YEAR

A.	Anatomy, with dissection.	A.	Therapeutics.
A.	Physiology.	B.	Operative Dentistry.
A.	Metallurgy, lectures.	B.	Prosthetic Dentistry.
A.	Metallurgy, laboratory.	B.	Clinical Dentistry.
A.	Operative Technic.	B.	Orthodontia.
A.	Crown and Bridge Technic.	B.	General Pathology.
A.	Orthodontia Technic.	B.	Oral Pathology and Hygiene.
A.	Special Histology.		

*The new schedule of studies for the freshman and sophomore years will be announced at a later date.

SENIOR YEAR

A.	General Hygiene.	A.	Special Therapeutics.
A.	Oral Pathology and Hygiene.	A.	Orthodontia.
		A.	Oral Surgery.
A.	General Pathology and Bacteriology.	A.	Operative Dentistry.
		A.	Prosthetic Dentistry.
A.	Practical Bacteriology.	A.	Clinical Dentistry, Operative and Prosthetic.
A.	Jurisprudence.		
A.	Regional Anatomy.	A.	Clinical Surgery.

All students of the first and second years will be required to pass an examination on the studies pursued in their respective courses before leaving the University at the close of each term. No student who has failed in two of the studies of his course will pass to advanced standing unless these studies are made up before the second week in January of the succeeding session. No certificates are given to any who fail in more than two branches, except a time certificate stating the actual time of attendance.

Examination in conditioned studies will take place the following session, namely, the fourth week in September and the second week in January.

COMBINED COURSES LEADING TO DEGREES IN DENTISTRY AND IN SCIENCE OR THE ARTS

Arrangements have been made with the faculty of the College of Liberal Arts by which it will be possible for a student to complete the course in Science and the course in Dentistry in six years, thereby attaining the degrees of B. S. and D. D. S.

A student electing the Classical or Philosophical course in the College of Liberal Arts, may obtain the degree of B. A. or B. Ph. and D. D. S. in the same length of time by electing the required science of the scientific course during the years of his undergraduate course in the College of Liberal Arts and taking the course in Dentistry as prescribed in the following combined course.

REQUIREMENTS FOR ADMISSION TO THE COMBINED DENTAL AND CLASSICAL, OR DENTAL AND PHILOSOPHICAL COURSE

1.	Latin, or modern language*	8 credits
2.	English, or Literature,	8 credits
3.	History (may include Civics),	4 credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions,	3 credits
5.	Plane and Solid Geometry,	3 credits
6.	Science,	2 credits
7.	Greek, or Electives,	2 credits
	Total,	30 credits

REQUIREMENTS FOR ADMISSION TO THE COMBINED DENTAL AND SCIENTIFIC COURSE

Another excellent course leads to the degrees of B. S. and D. D. S. This course may also be completed in six years. The admission requirements are as given below:

1.	Latin, or German, or French,	4 credits
2.	English and Literature,	8 credits
3.	History (may include Civics),	4 credits
4.	Algebra, through Quadratics, Theory of Exponents, and Progressions	3 credits
5.	Plane and Solid Geometry,	3 credits
6.	Science,	2 credits
7.	Electives, (*additional* accreditable work in foreign language, English, History, or Science),	6 credits
	Total,	30 credits

For detailed statement of the requirements for admission, see the latest Announcement of the College of Liberal Arts.

* Either four years of Latin, or two years in each of two modern languages, will be accepted.

COMBINED COURSE LEADING TO THE DEGREES OF B. S. AND D. D. S.

First Year

German—*5
Mathematics—5
Drawing—3
English—2
Military Drill—3

Second Year

German—3
English—2
Physics—5
Zoology—5
Animal Physiology—2
Military Drill—3

Third Year

Botany—5
Chemistry—5
Animal Morphology, advanced—5
Military Drill—3

Fourth Year

Freshman Dental
French—10 hours in College of Liberal Arts.

Fifth Year

Junior Dental
Elective, of 10 hours in College of Liberal Arts

Sixth Year

Senior Dental

COMBINED COURSE LEADING TO THE DEGREES OF M. D. AND D. D. S.

Students may arrange to obtain the degrees of Doctor of Medicine and Doctor of Dental Surgery in six years. Details must be arranged by the Faculty. The requirements for admission to the combined course leading to the degrees M. D. and D. D. S. are the same as the requirements for admission to either of the two Colleges of Medicine. They are as follows: 24 preparatory credits, including at least one year of Latin, one preparatory credit being given for the successful pursuit of one high school or academy study during a semester eighteen weeks in length, with five recitation periods a week on the basis of four studies a day.

* The figures indicate the number of exercises a week. For a full statement regarding courses in College of Liberal Arts see University Calendar.

Students taking combined courses under four year curriculum will add one more year to above course of study, see Dean of College for particulars.

7. ADVANCED PRACTICAL PHYSIOLOGY—Elective. This course is open to students who have completed courses 1 to 10, inclusive. The student may select any subject in Physiology and do advanced work. He will be supplied with animals and apparatus for this work. Nine hours a week, during senior year. Dr. MCCLINTOCK, Mr. BAILEY.

DEPARTMENT OF CHEMISTRY AND METALLURGY

PROFESSOR ROCKWOOD; MR. BRINK, DR. NILES

The course consists of lectures with recitations, and of practical work in the laboratory. The former are given in the Medical Building; the latter in the Chemical Laboratory of the University.

1. GENERAL CHEMISTRY—This is taught by lectures and recitations in which the general principles of the science are considered, special attention being given to their application to dental operations and to the needs of the dental practitioner.

Freshman year, second term of the first semester, and first term of the second semester. Two hours each week. Professor ROCKWOOD.

2. ANALYTICAL CHEMISTRY—A laboratory course, the object of which is to familiarize the student with chemical manipulations and the use of apparatus as well as with the action of re-agents and the properties of the most important metallic compounds.

Freshman year, second term of the first semester, and first term of the second semester. Five hours each week. Professor ROCKWOOD, Mr. BRINK, Dr. NILES.

3. METALLURGY—The lectures treat of the separation of the metals from their ores, their refining, and the properties of those of most use in dentistry, the preparations, properties and methods of working dental alloys, including the nature, manufacture and testing of amalgams.

Junior year, first semester, first term. Two hours each week. Professor ROCKWOOD.

4. PRACTICAL METALLURGY—This consists of laboratory study of the metals most commonly used in dentistry, —

their physical properties and chemical changes, particularly those produced by the action of heat. Opportunity is afforded for making and testing amalgam alloys and for learning the method of refining gold, silver, and platinum.

Junior year, first semester, first term. Professor ROCKWOOD, Mr. BRINK, Dr. NILES.

DEPARTMENT OF MATERIA MEDICA AND THERAPEUTICS

PROFESSOR CHASE, PROFESSOR BREENE.

1. INORGANIC MATERIA MEDICA—The course is introduced by definitions, and a discussion of the routes and modes of administering drugs, dosage, classification of official preparations, and prescription-writing, including the subject of incompatibilities. Following such general topics inorganic drugs are taken up in a natural order of grouping. Sophomore year, first semester. Two lectures and one recitation each week. Professor CHASE.

2. ORGANIC MATERIA MEDICA—Drugs of both vegetable and animal origin will be considered. As before they will be grouped with reference to some dominant or characteristic action. Thus are grouped together drugs affecting the nervous system, the heart, and circulatory system, the respiration, etc. Toward the close of the year a general review is given. Sophomore year, second semester. Two lectures and one recitation each week. Professor CHASE.

3. THERAPEUTICS — General therapeutics will be presented during both semesters with special reference to general principles underlying the subject of healing. Drugs such as affect the tissues of the body generally as well as those directed to particular systems are presented separately. Thus are considered drugs acting upon the heart, circulation, respiration, digestion, etc. Later in the semester drugs whose action is more definitely directed to particular organs, or parts are considered. Prescription-writing will be given careful attention throughout the year, the aim being to illustrate each drug with one or more practical prescriptions, and to discuss briefly its mode of administration. Junior year, both semesters. One lecture and one recitation each week. Professor CHASE.

4. DENTAL THERAPEUTICS—In addition to the foregoing the members of the junior class will be required to attend a special course in Dental Therapeutics wherein will be presented those drugs which are of special use to the practicing dentist. Junior year, second semester. One lecture each week. Professor BREENE.

5. DENTAL THERAPEUTICS—This course is a review of the work given in the junior year, with additional instruction in chemical therapeutics. This gives the student a thorough understanding of practical methods of treatment.

The application and prescribing of remedies for the prevention as well as the cure of diseased conditions is demonstrated by the instructors in charge of the infirmary.

Senior year, first and second semester. One lecture each week with recitations. Professor BREENE.

6. APPLIED GENERAL THERAPEUTICS—A review by way of theses prepared by the junior students, upon stated cases involving original research and reference to the latest and most approved medical periodicals will be required. Such theses will be read and discussed when members of the senior class. Professor CHASE.

DEPARTMENT OF HISTOLOGY AND EMBRYOLOGY

PROFESSOR WHITEIS; MR. HOOVER, MR. BLYTHE, MR. BOOTS

The Histological Laboratory occupies rooms in the College of Liberal Arts. There are laboratories for class work and for special work. The department is furnished with fifty-five compound microscopes and a number of dissecting microscopes. Among the other equipment may be mentioned several microtomes for brain sections, celloidin work, and paraffin work; incubators and injection apparatus; also the reagents and appliances usually found in a well-furnished histological and embryological laboratory.

1. THE HISTOLOGY OF CELLS AND TISSUES—The first work of the course is on the structure and manipulation of the microscope. It is followed by a consideration of the classification and action of stains. Cell structure, as seen in the simpler forms of plant and animal cells, is first studied,

then the more highly differentiated animal cells. After this the histology of the animal tissues is taken up. Freshman year, first semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

2. THE HISTOLOGY OF THE DIGESTIVE TRACT, GENITO-URINARY TRACT, AND RESPIRATORY TRACT—Freshman year, first semester, second term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

3. THE HISTOLOGY OF THE SKIN AND NERVOUS SYSTEM —Freshman year, second semester, first term.

Three lectures and one recitation each week. Professor WHITEIS.

Laboratory work, six hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

4. EMBRYOLOGY AND BIOLOGY — The embryos of the chick, the frog, and some mammal will be studied, in addition to the lower forms of animal life. Freshman year, second semester, second term.

One lecture and one recitation each week. Professor WHITEIS.

Laboratory work, two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

5. LABORATORY TECHNIQUE—An optional course. Freshman year, second semester, second term. Two hours each week. Professor WHITEIS, Mr. HOOVER, Mr. BLYTHE.

6. ADVANCED WORK FOR A DEGREE IN THE GRADUATE COLLEGE—As a prerequisite to advanced work in this department the student will be required to possess a good working knowledge of both the methods and the subject matter of general histology and embryology. He will be assigned a private laboratory and offered such opportunities as the general laboratory and library afford. The department will supply the necessary materials in the way of tissues and reagents.

Two courses are offered as follows:

I. *The Eye*—The histology of its tissues, considered in relation to both their phylogenetic and their ontogenetic development. The structure and development of the retina will be specially studied.

II. *The Ear*—The investigation will proceed along the same lines as in the preceding course.

Throughout the year, hours to be arranged. Professor WHITEIS.

DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY

PROFESSOR BIERRING; DR. ALBERT, DR. LAMBERT, MR. KRAUSE

The course in Pathology and Bacteriology extends through the sophomore, junior, and senior years, and is presented by means of didactic lectures, recitations, demonstrations, and laboratory work. The lectures are devoted to Bacteriology and general and special Pathology, and are illustrated by means of drawings, preparations from the Medical Museum, and fresh specimens derived from post-mortem examinations and the University clinics.

The laboratory of Pathology and Bacteriology is situated in the College of Liberal Arts. It is thoroughly equipped with new microscopes of the most modern type, and all apparatus necessary for carrying on every form of bacteriological research. By reason of special association with the pathological institutes of Vienna, Leipzig, and Munich, the laboratory has come into possession of a most complete and varied collection of diseased tissues and organs, for the study of general and special pathological histology. Each student is provided with a table, a microscope, and the necessary staining reagents.

The new laboratory building of the College of Medicine will be ready for occupancy on October 1, 1903, in which the department of pathology and bacteriology will occupy the entire third floor.

1. GENERAL PATHOLOGY—A didactic, recitation, and demonstration course, including the general features of infec-

tion and the causation of disease processes, disorders in circulation and nutrition, inflammation, and allied subjects.

First semester, two hours each week. Professor BIERRING.

2. TUMORS AND SPECIAL PATHOLOGY—A didactic, recitation, and demonstration course, including the different forms of new growths, and the disease changes occurring in special structures, especially the oral tissues and such changes as come within the sphere of dental surgery.

First term, second semester, two hours each week. Professor BIERRING.

3. PATHOLOGICAL HISTOLOGY—A laboratory course in general pathology, tumors, and special pathology, which is illustrative of the didactic lectures, comprising the preparation and study of slides, showing the general pathologic changes that occur in human tissues, a complete collection of tumors, and special diseased conditions of the oral cavity and adjacent structures.

Special attention is given to the drawing of the microscopic specimens; to test the knowledge of the student reviews of unknown specimens are given at different times during the course.

Second term, first semester, first term, second semester, two hours each week. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT, Mr. KRAUSE.

4. BACTERIOLOGY—A didactic, recitation, and laboratory course including the cultivation of micro-organisms, their separation by means of plate cultures, the staining, recognition, and diagnosis of the differeut pathogenic microbes, with special reference to the micro-organisms of the buccal cavity and their relation to the various infectious processes of adjacent tissues.

Second term, second semester. Professor BIERRING, Dr. ALBERT, Dr. LAMBERT, Mr. KRAUSE.

GENERAL HYGIENE

Instruction in Hygiene, in addition to that given in Pathology, Bacteriology, and Physiological Chemistry, consists of a course of lectures and recitations. In this course will be

considered the predisposing factors of disease; the principles on which immunity depends; the relation of ventilation, water-supply, food, and the disposal of waste to the public health; climatology, heredity, vital statistics and other subjects. A syllabus of the lectures will be available which will contain references to the literature of each subject. Junior year, first semester, twenty-six hours. Dr. CLARKE.

COMPARATIVE ODONTOGRAPHY

A general view of the dental organs of animals affords many points of practical interest to the dental student, and throws light on some perplexing questions that arise in connection with peculiarities of the human teeth. Such a view is afforded by this course of lectures. Particular attention is paid to the various mechanical contrivances by which Nature has met special dental problems. In addition to this general discussion of the teeth of animals, some attention is paid to the embryology and histology of these organs. A special feature of the course is a demonstration, by means of projection of the actual slides, of some obscure points regarding the vascular supply of the teeth and peridental membrane. This is made possible by means of a series of preparations by which sections of teeth, including the pulp and other soft structures, are made without decalcification.

The course is amply illustrated by specimens from the natural history museum, charts, and lantern slides.

Second semester, senior year. Professor NUTTING.

DENTAL JURISPRUDENCE

The state law regulating the practice of dentistry is fully discussed. The general principles of legal liability will be explained and suggestions are made as to the legal rights of the practitioner with reference to his compensation. Judge MCCLAIN.

PRACTITIONERS' COURSE

This course is planned for the convenience and benefit of practitioners. It will be optional with those entering the course as to what studies they will pursue, and what meth-

ods in practical work they may take up. The curriculum will be arranged more especially to give a thorough course in pulp and abscess treatment and other pathological conditions of the oral cavity. In addition to this, detailed instruction will be given in bridge and crown work, continuous gum dentures, porcelain fillings, and in the methods of working metals by all the different operations which the practitioner is called upon to perform.

REQUIREMENTS FOR ADMISSION TO PRACTITIONERS' COURSE

Anyone in reputable practice may enter this course. Graduates of this college will be admitted on the payment of the matriculation fee only. Graduates of other reputable dental schools will be admitted on the payment of the matriculation fee and $10.

A full corps of demonstrators in all subjects has been appointed to attend to the duties pertaining thereto. The service of several additional clinical instructors will be obtained during the session, each a specialist.

FEES FOR PRACTITIONERS' COURSE

Matriculation fee	$ 5.00
Tickets, including certificates	25.00
Laboratory fee	6.00
	$36.00

DENTAL ASSISTANTS' COURSE

A training school for dental assistants has been authorized by the Board of Regents. The course will extend through one year of nine months, beginning and ending with the regular dental year. The fee for tuition is $100 for the course, of which $60 is payable on the date of registration, and the balance at the opening of the second semester. Candidates for admission to this course must possess a common school education, and must present two letters of recommendation as to their capabilities, qualifications, and moral character. No other examination for admission will be required. This course will be both didactic and prac-

tical, thorough instruction being given in operative and prosthetic technic, therapeutics, pathology, and dental anatomy; there are also special lectures and work relative to the duties of an assistant both at the operating chair and in the laboratory.

Credits obtained in this course will be allowed to those desiring to attend and complete the regular dental course, providing the requirements are fulfilled as provided for the regular dental course.

DENTAL MUSEUM AND LIBRARY

Members of the dental profession, dental students, and all persons interested, are invited to contribute to the museum such specimens of malformation, normal or diseased conditions as will serve for illustration of dental teaching; also to the library any books, pamphlets, journals, or other reading matter pertaining to dental subjects. Such contributions will be duly labeled with the donor's name and carefully preserved.

REQUIREMENTS FOR GRADUATION FOR SESSION OF 1903–1904

The candidate for graduation must be of legal age and of good moral character; must present to the faculty a satisfactory case of artificial dentistry; also the required clinical record of practical operations on the natural teeth; must sustain a satisfactory examination in the branches taught, and must prove his fitness for the practice of dentistry.

The time of study must include attendance on three courses of lectures, the last of which must be at this college.

The deportment during the course must have been unexceptional, and attendance upon all lectures, clinics, and other instruction in the course must have been in accord with the requirements of the college.

Members of the senior class must notify the Dean of the Faculty in writing during the second week of April of their intention of becoming applicants for the degree of Doctor of Dental Surgery, at the same time presenting a certificate from the Treasurer of having paid all fees, and a certificate of legal age and good moral character.

Attendance on any course of lectures in other recognized dental colleges having similar requirements will be accepted as equivalent to a corresponding course in this college. Graduates of medical colleges will be required to attend two full years of instruction in this college, including all laboratory and clinical requirements, and all lectures, before applying for graduation.

Having complied with the requirements of this college, the faculty will recommend the candidate to the Board of Regents as entitled to receive the degree of Doctor of Dental Surgery.

TUITION

The fee for tuition is $100 for each year, payable $60 on date of registration and $40 at the opening of the second semester. There are no extra fees whatever, but a deposit of $3 must be made to cover breakage and loss before beginning work in the chemical laboratory. All material used in the laboratory and Operative Technic work are furnished by the college, except gold.

The above statement of the fees is now in effect, and will be understood to apply to all students in the college, entirely irrespective of the date of registration.

PAYMENT OF FEES

All fees must be paid promptly, when due, to the Treasurer of the Board of Regents, Lovell Swisher. Students who do not pay the fees when due will be supended from the college until payment has been made.

TEXT-BOOKS AND BOOKS OF REFERENCE

These can be obtained at the bookstores in Iowa City. Dealers give a discount of from ten to twenty per cent. The following are recommended by the Faculty.

Operative Dentistry: American Text-book of Operative Dentistry, Ottolengui, Flagg's Plastics, Johnson's Principles and Practice of Filling Teeth.

Prosthetic Dentistry: Essig's Prosthetic Dentistry, Richardson's Mechanical Dentistry, Evan's Artificial Crown and Bridge Work; collateral reading.

General Pathology: Green, Stengel, Zeigler, Delafield, Pruden.

Bacteriology: Abbott, Crookshank, McFarland.

Histology: Piersol, Schaefer, Stirling, Klein.

Oral Pathology and Hygiene: Greene, Garretson's Oral Surgery, Wilson on Hygiene, Marshall's Diseases of Face, Mouth, and Jaws, Barrett's Oral Surgery, Burchard's Dental Pathology.

Chemistry: General Chemistry, Bloxam, Remsen; Qualitative Analysis, Rockwood.

Metallurgy { Essig / Hodgen

Materia Medica: White and Wilcox, Potter.

Therapeutics: H. C. Wood, Potter, Gorgas.

Dental Therapeutics: Gorgas, Eli Long, Borland.

Anatomy: Gray (13th edition), Holden's Landmarks, Quain (10th edition), Holden's Osteology, McClellan's Regional Anatomy, Treve's Applied Anatomy.

Physiology: Landois and Sterling, Kirk, Stewart.

Orthodontia: Angle, Guilford.

Dental Anatomy: Black, Broowell.

Comparative Anatomy: Howell.

Dictionaries: Harris, Dunglison, Thomas, Gould.

BOARD AND ACCOMMODATIONS

Board in Iowa City can be obtained for from $2.00 to $3.50 a week; rooms from $2.00 to $8.00 a month. Many students procure rooms, and board in clubs, which materially reduces the cost.

GENERAL INFORMATION

Seats will be assigned by classes in the order of registration at the University.

Operating chairs will be assigned to the senior class in the order of registration at the University.

Students should make their arrangements to be in attendance on the first day of the session, as the faculty cannot adjust their plans to the tardy arrival of students by wasting time on unimportant lectures at the beginning. Promptness at the beginning of the term is very essential.

Members of the profession who receive this catalogue are requested to notify the Dean of any change in address. They will also confer a favor by sending the names of other dentists practicing in the towns in which they reside. For further information apply to William S. Hosford, Dean of the College of Dentistry, Iowa City, Iowa.

DENTAL CLINICS

STATISTICS—FOR THE YEAR 1902–1903

No. of patients treated in all departments	1045

OPERATIVE DEPARTMENT

No. of fillings—gold	2074
No. of fillings—amalgam	3186
No. of fillings—cement	909
No. of pulp cases	1468
No. of root fillings	955
No. of cleaning cases	783
No. of pyorrhœa cases	86
No. of extraction cases	570
No. of abscess cases	69
No. of necroses cases	2

PROSTHETIC DEPARTMENT

No. of specimen sets of artificial teeth	296
No. of sets of artificial teeth	137
No. of sets of artificial teeth repaired	40
No. of specimen partial dentures	87
No. of specimen partial dentures, metal	52
No. of specimen full dentures, metal	54
No. of cleft palate appliances	6

CROWN AND BRIDGE WORK

No. of crowns and caps	892
No. of porcelain crowns	148
No. of pieces of bridge work	117
No. of specimen crowns and bridges	874

ORTHODONTIA DEPARTMENT

No. of sets of teeth regulated	29

Specimen Programme of the College of Dentistry, State University of Iowa, 1903-1904.

FRESHMAN YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Physiology 1	Histology 3	Materia Medica 2	Histology 3		Anatomy 1
9 to 10	Histology Recitation 3	Physiology 1	9:00 to 11:00 *Histological Laboratory*	Anatomy 1	Histology 3	Anatomy Recitation 1
10 to 11	Anatomy 1	Anatomy 1	9:45 to 10:15 University Assembly	10:00to 12:00 *Histological Laboratory*	10:00to 11:00 *Histological Laboratory*	Chemistry 1
11 to 12	Physiology Recitation 3	Dental Anatomy 3	Materia Medica 1			
1 to 2	1:00 to 4:00 Sec. II Prosthetic Laboratory	1:00 to 4:00 Sec. I Prosthetic Laboratory	1:00 to 4:00 Sec. II Prosthetic Laboratory	1:00 to 4:00 Sec. I Prosthetic Laboratory	1:00 to 4:00 Sec. II Dental Technic	1:00 to 4:00 Sec. I Dental Technic
2 to 3						
3 to 4						
4 to 5			4:00 to 5:00 Materia Medica Recitation			

2nd Term 1st Semester—Dental Anatomy, Chemistry.
Oct. 1st., Comparative Anatomy Dissection.

JUNIOR YEAR

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Operative Dentistry 4	Anatomy 1	Pathology 4	Prosthetic Dentistry 4	Prosthetic Dentistry 4	Prosthetic Dentistry
9 to 10	Operative Dentistry 4	Jr. Operative Dentistry	Thera-peutics 2	Thera-peutics 1	Physiology 1	Chemistry 4
10 to 11	General Pathology Recitation	Chemistry 4	Anatomy 9:45 to 10:15 University Assembly	Anatomy 1	Anatomy 1	Physiology 1
11 to 12	Orthodon'a Technic After Jan. 1	Physiology 1	Anatomy Recitation	Thera-peutics 1	Ortho-dontia 4	
1 to 2	1:00 to 4:00 Sec. II Prosthetic Laboratory	1:00 to 4:00 Sec. II Prosthetic Laboratory	1:00 to 3:00 Sec. I Prosthetic Technic	1:00 to 4:00 Sec. II Prosthetic Laboratory		
2 to 3	1:00 to 4:00 Sec. II Operative Technic	1:00 to 4:00 Sec. I Operative Technic	1:00 to 3:00 Sec. II Operative Technic	1:00 to 4:00 Sec. I Operative Technic	3:00 to 5:30 Juni'rClass Chemical Laboratory	
3 to 4						
4 to 5			3:00 to 5:30 Juni'rClass Chemical Laboratory			

Infirmary after completion of Technic course. Dissection to be announced.
Special Histology, Second Semester, 4th Term.

SENIOR YEAR.

Hour	Monday	Tuesday	Wednesd'y	Thursday	Friday	Saturday
8 to 9	Operative Dentistry 4	Special Therap't's 4	General Pathology	Prosthetic Dentistry 4	Prosthetic Dentistry 4	
9 to 10	Operative Dentistry 4		9:45 to 10:15 University Assembly	9 to 11 to Jan. 1st Ortho-dontia Technic	Recitation Prosthesis 4	9:00 to 12:00 Infirmary
10 to 11	General Pathology Recitation	Regional Anatomy 4	General Hygiene	Jan. 1st to June Pathologicl Laboratory		
11 to 12			Special Lectures		Ortho-dontia 4	
1 to 2						
2 to 3	1:00 to 5:00 Infirmary	1:00 to 5:00 Infirmary	1:00 to 5:00 Infirmary	1:00 to 5:00 Infirmary	1:00 to 5:00 Infirmary	1:00 to 5:00 Infirmary
3 to 4						
4 to 5						

Clinical Surgery, 10 to 12, Monday. Special Pathology, second semester. Oral Surgery, second semester, special. Lectures to be announced.

No. 1, Medical Amphitheatre. No. 2, West Room Medical Building. No. 3. West Room, Dental Building. No. 4, Room No. 17 Dental Building.

COLLEGE OF PHARMACY

THE COLLEGE OF PHARMACY

FACULTY

GEORGE EDWIN MACLEAN, PH. D., LL. D.,
President of the University.

EMIL LOUIS BOERNER, PH. G., PHAR. D.,
Professor of Pharmacy and Dean of the Faculty.

LAUNCELOT W. ANDREWS, PH. D.,
Professor of Chemistry, and Director of the Chemical Laboratory.

CHARLES SUMNER CHASE, M. A., M. D.,
Professor of Materia Medica and Therapeutics.

BOHUMIL SHIMEK, C. E.,
Professor of Botany.

WILBER JOHN TEETERS, M. S., PH. C.,
Professor of Pharmacognosy, and Director of Pharmaceutical Laboratory.

THOMAS H. MACBRIDE, M. A., PH. D.,
Special Lecturer.

ELBERT WILLIAM ROCKWOOD, M. A., M. D.,
Lecturer on Toxicology.

CARL VON ENDE, PH. D.,
Instructor in Chemistry.

ALICE ANKENEY, B. A.,
Assistant Instructor in Chemical Laboratory.

ZADA M. COOPER, PH. G.,
Assistant in Pharmaceutical Laboratory.

HARVEY H. LOCHRIDGE, B. S.,
Storekeeper in Chemical Laboratory.

THE COLLEGE OF PHARMACY

The College of Pharmacy of the State University of Iowa is designed to furnish pharmacists, and those desiring to engage in pharmacy, an opportunity to acquire a thorough practical education in the sciences most intimately connected with the practice of that profession. A technical education, such as that offered by the colleges of pharmacy, and seldom if ever acquired in drug stores, is as necessary to the accomplished pharmacist as is the special training of a medical course to the physician. The day has come when the pharmacist who is not provided with the evidence of skill which the college diploma furnishes, labors under equal disadvantages with the uneducated physician of today.

The experience of the past eighteen years has thoroughly demonstrated the practical nature of the courses in this College. This is shown by the readiness with which students of even one session find and hold employment in drug stores at salaries much higher than they could possibly command without the college training, and by the fact that a much larger percentage of students who have completed one year's work in this college pass the examinations before the State Board of Pharmacy than of candidates who go before the Board from drug stores, even after several years' experience.

Incidentally, therefore, the courses are well calculated to aid those who desire specially to qualify for the examinations of the State Board of Pharmacy.

It is the aim of the faculty to make the courses so practical that students will find it not only professionally but also pecuniarily profitable to pursue a course of study in the college.

Sec. 2589 of the Code, relating to the registration of pharmacists, was amended by the Legislature on March 26, 1898, to read as follows:

"Sec. 2589. Examinations—registration. The commission at such times and places as it may select, and in such manner as it may determine upon, shall examine all persons desiring

to engage in and conduct business as registered pharmacists, as contemplated in the preceding section, and, if found competent, the applicant's name shall be entered in the registry book of certificate holders. Graduates of Pharmacy holding a diploma from the State University, or from any school or college of pharmacy requiring a course of study and laboratory work equivalent to that prescribed by the said University in its catalogue for the school year 1897-98, shall be entitled to registration as pharmacists without examination. Pharmacists thus registered have the sole right to keep and sell all medicines and poisons, except intoxicating liquors."

The nineteenth annual course of lectures will begin on Thursday, September 24.

BUILDING

This college is comfortably located in a three-story building erected at a cost of about fifty thousand dollars and furnishing about twenty-five thousand square feet of floor space, perhaps the largest accomodations in the way of room enjoyed by any college of pharmacy in this country. The equipment of this building is of the most modern type and is in keeping with the development of the science. Through liberal appropriations periodically made by the Legislature and Board of Regents, this equipment is being constantly enlarged, and affords excellent facilities for instruction. The lecture rooms are provided with all desirable conveniences for class demonstration, and with tablet chairs. The laboratories are especially roomy, the chemical and pharmaceutical laboratories each occuying a floor space of 54x140 feet, which is divided into a large general laboratory and smaller rooms for special research. Two forty horse-power boilers supply the steam for all purposes, and a seven horse-power gas engine furnishes the power for drug mill, dynamo, etc.

REQUIREMENTS FOR ADMISSION

Each applicant for admission must present to the faculty a satisfactory certificate of good moral character.

The following classes of applicants may be admitted to junior standing without examination:

1. Graduates or matriculates of reputable universities or colleges who present diplomas or certificates of honorable dismissal from such universities or colleges.

2. Graduates of state normal schools, of accredited high schools or academies, or of other secondary schools whose courses of study are approved by the University, who present diplomas or certificates showing such graduation.

3. Pupils who have only partially completed the course of study of a state normal school, accredited high schools or academy, or other secondary school whose courses of study are approved by the University, upon presentation of certificates signed by the Superintendent or the Principal showing that they have completed the equivalent of at least *two years* of high school work, or *sixteen* (*16*) preparatory credits.* This certificate must be made on the blank form inserted in this Announcement, or on a similar blank which can be obtained by addressing the President of the University, the Dean of the College of Pharmacy, or the University Examiner.

All other applicants may be admitted only upon passing examinations in the subjects named in the programme of entrance examinations given below, or other subjects which are real equivalents.

Applicants presenting certificates from accredited schools for work not fully meeting the requirements for admission, will be examined in the subjects in which they are deficient.

Notice is given that the requirements for admission are to be extended in subsequent years.

It is urged that any one expecting to enter the College of Pharmacy next September send all certificates of preparatory work to the University Examiner *as early in the summer as possible, and certainly before September 1.* If the credentials are satisfactory a card of admission will be sent to the applicant at once. Upon arriving in the city he should present this card to the Dean for signature.

Admission to the senior class is gained by passing an examination in the branches of study taught during the junior year. Students presenting evidence of having passed the junior examination in another recognized college or school of pharmacy will be admitted without examination.

*A preparatory credit is defined as the equivalent of *one* high school study *five* days a week during a semester at least *eighteen* weeks in length, on the basis of *four* studies a day.

ENTRANCE EXAMINATIONS

Any person expecting to enter the College of Pharmacy in September, 1903, should be careful to learn defore the opening of the University exactly what entrance examinations he will be required to pass. He can learn this by addressing the President of the University, the Dean of the College of Pharmacy, or the University Examiner.

It is necessary that each applicant who is to be examined arrive in the city early enough to be present *at his first examination as indicated in the programme given below.* He should present himself at once at the office of the University Examiner, who will give all necessary directions.

For *each separate* examination given at any other time than that announced in the following programme, a fee of *one dollar* will be charged by the University. For a series of two or more examinations a fee of *two dollars* will be charged.

PROGRAMME OF ENTRANCE EXAMINATIONS

TUESDAY, SEPTEMBER 22 AND WEDNESDAY, SEPTEMBER 23, 1903

Arithmetic	1 credit	Monday	1:30 p. m.
English and Eng. Grammar	2 credits,	Tuesday, 11:00 a. m, 4:30 p. m. Wed 11:00 a. m, 4:30 p. m.	
United States History,	1 credit,	Tuesday	1:30 p. m.
Civil Government,	1 credit,	Tuesday,	2:30 p. m.
Algebra through Quadratics,	3 credits,	Wednesday,	8:00 a. m.
Physical Geography,	1 credit,	Wednesday,	11:00 a. m.
Botany	1 credit,	Wednesday,	3:00 p. m.
Physiology,	1 credit,	Wednesday,	4:00 p. m.

OUTLINE OF THE PLAN OF INSTRUCTION

The courses of instruction embrace lectures on Pharmacy, Materia Medica, Pharmacognosy, Botany, Chemistry, and Toxicology, with daily practical work in pharmaceutical, microscopical, and chemical laboratories, and recitations during the term. More than five hundred and eighty lectures are delivered annually to the junior students, and they devote six hundred and forty hours to laboratory practice. Three hundred and fifty lectures are delivered annually to the senior students, and they devote more than seven hundred hours to work in the several laboratories.

PHARMACY

PROFESSOR BOERNER, PROFESSOR TRETERS, MISS COOPER

1. The introductory lectures in this course will embrace a short review of the history and development of Pharmacy and Pharmacy Laws. The Pharmacopœias of the United States, England, France, and Germany, and the various systems and appliances of weights and measures in use by the leading nations will receive detailed attention. Specific gravity will be considered, the principles explained, and its application to Pharmacy illustrated by experiments. Among the numerous practical subjects that will receive due attention are the following: Heat, its sources, uses, control, and application in Pharmacy as exemplified in the use of furnaces, stoves, burners, drying ovens, sand, water, oil, glycerine, paraffin, air and steam baths; the processes of evaporation, distillation, sublimation, fusion, desiccation, calcination, carbonization, ignition, etc. The following processes will receive the attention which their importance demands: Comminution, solution, precipitation, crystallization, dialysis, clarification, filtration, granulation, maceration, percolation, expression. This course will close with consideration of the

methods and processes employed in the preparation of pills, powders, triturations, masses, confections, tablets, troches, suppositories, cerates, ointments, plasters, etc.

Junior year, four lectures and one recitation each week, first semester and first term second semester. Professor BOERNER.

2. PHARMACEUTICAL MATHEMATICS— The aim of this course is to teach the student to use easily and accurately the various weights and measures, the relation of one system to another in comparison with a common standard; the mutual relation of weight and volume; the calculation of strength and proportions in making pharmaceutical preparations or the dilution or fortification of substances to obtain any required result; the computation of dosage.

Junior year, one recitation each week during first semester. Miss COOPER.

3. This course is devoted to a critical study of the galenical preparations of the United States Pharmacopœia by classes, embracing waters, solutions, syrups, honeys, mucilages, emulsions, mixtures, glycerites, spirits, elixirs, collodions, liniments, oleates, infusions, decoctions, tinctures, wines, fluid extracts, oleo-resins, vinegars, extracts, resins, etc.

Junior year, four lectures and one recitation each week. Second term, second semester. Professor BOERNER.

4. In this course the student will make about 150 United States Pharmacopœia and National Formulary preparations, taking them up in a progressive order, illustative of the various processes used in Pharmacy as referred to under course 1. Each preparation is graded separately and required to meet a reasonable standard of quantity, quality, and strength. The instruction will embrace practice in the use of thermometers, hydrometers, specific gravity bottles, balances, etc. The preparation of hypodermic and compressed tablets, scale salts, pill masses, syrups, tinctures, fluid extracts, emulsions, suppositories, ointments, etc.

Junior year, laboratory course. Nine hours each week throughout the year. Professor TEETERS and Miss COOPER.

5. Instruction by means of a quiz class is given covering difficulties likely to be encountered in laboratory work. The

composition of the various preparations, with chemistry involved, and the reasons for each step in their manufacture will receive careful consideration.

Junior year, two hours each week throughout the year.

Senior year, one hour each week throughout the year. Professor TEETERS.

6. This is a continuation and elaboration of course 3 in which all the official preparations of a drug are considered together, contrasted or compared with those of similar name or nature recognized by Pharmacopœias of leading nations or extensively used.

Senior year, four lectures and one recitation each week. First term, first semester. Professor BOERNER.

7. This course will consist of the manufacture of about seventy-five preparations selecting the moredifficult galenicals from the U. S. Pharmacopœia and National Formulary and will include the preparation of many chemicals which the Pharmacist should and can prepare for himself with both advantage and profit.

Senior year, laboratory course. Nine hours each week, first semester. Professor TEETERS and Miss COOPER.

8. This course will deal with the consideration in detail of the pharmacy of all inorganic drugs and preparations of the U. S. P., embracing the inorganic acids, the preparations of chlorine, bromine, iodine, sulphur, phosphorus, carbon, boron, silicon, potassium, sodium, lithium, ammonium, magnesium, calcium, barium, strontium, zinc, aluminum, cerium, manganese, iron, chromium, lead, copper, silver, mercury, antimony, arsenic, bismuth, gold, and platinum.

Senior year, four lectures and one recitation each week. Second term, first semester. Professor BOERNER.

9. The lectures of this course deal entirely with the pharmacy of the organic materia medica. The official drugs will be considered by groups, the classification being based upon the more prominent proximate constituents of plants, beginning with those substances containing prominently lignin and passing in order to those containing starches, sugars, gums, resins, oleo-resins, fixed oils, volatile oils, alkaloids, glucosides, neutral principles, etc. The plan of classification

admits of the study of those derivative products useful as menstrua and contained in subsequently considerated preparations such as the alcohols, ethers, chloroform, etc., early in the term. Animal drugs and products will reeeive due attention. Senior year, four lectures and one recitation each week. First term, second semester. Professor BOERNER.

10. In order to properly equip the pharmacist for his work several short courses in special practical subjects will be given embracing the assay of drugs; the qualitative and quantitative determination of the constituents of normal and pathological urine and a microsocopic examination of deposits; the analysis of gastric juice, milk, and water.

Senior year, combined lecture and laboratory course. Nine hours each week. First term, second semester. Professor TEETERS and Miss COOPER.

11. This course will have especially in view practical application of knowledge gained in previous courses and will consist in applying U. S. P. tests for identity and detection of impurities in drugs;the determination of strength of official preparations made by junior students; the detection of adulteration of food; the compounding of prescriptions under careful individual instruction at the prescription counter, illustrative of chemical, pharmaceutical, and physiological incompatibility.

Senior year, laboratory course. Nine hours each week. Second term, second semester. Professor TEETERS and Miss COOPER.

12. This course will be devoted to advanced pharmacy and will, in connection with the laboratory courses in pharmacy, have for a special aim the fitting of the student for the responsibility of conducting a pharmacy. Magistral or extemporaneous pharmacy, including that long list of unclassified processes incident to counter and prescription work, will receive special attention. The application of processes considered in courses 1, 2 and 3 will be a special feature of this course. The subject of incompatibility in prescriptions, prescription difficulties, and the adulteration and sophistication to which drugs and medicines are subject will be noticed to the extent which their importance demands. The stereopticon will be freely used in the study of autographic and

difficult prescriptions. Lectures on the commercial side of pharmacy, relating especially to the fitting out of drug stores, buying and selling, the successful conduct of the pharmacy, etc., will conclude the course.

Senior year, four lectures and one recitation each week. Second term, second semester. Professor BOERNER.

CHEMISTRY

PROFESSOR ANDREWS, DR. VON ENDE, MR. LOCHRIDGE, MISS ANKENEY

1. GENERAL CHEMISTRY—Lectures on the principles of chemistry, illustrated by experiments. Three times a week, first semester. Professor ANDREWS. Quiz once a week. Dr. VON ENDE.

2. QUALITATIVE ANALYSIS—Labaratory practice accompanied by lectures three times a week, second semester. Each student is expected to complete about twenty-five analyses of mixtures for bases and acids. Professor ANDREWS and Dr. VON ENDE.

3. ELEMENTS OF CHEMISTRY—Lectures four times a week, first semester. Dr. VON ENDE,

Laboratory exercises in chemical reactions and preparations, three times a week. Dr. VON ENDE and Miss ANKENEY.

4. QUANTITATIVE ANALYSIS—Determinations of the more important constituents of chemical and pharmaceutical preparations. Standardizing and use of volumetric solutions. Laboratory three times, lectures once a week, second semester. Professor ANDREWS. Quiz once a week. Dr. VON ENDE.

5. SPECIAL QUALITATIVE ANALYSIS—Detection of organic constituents of mixtures, such as alcohol, chloral, phenols, formaldehyde, alkaloids, etc., etc. Professor ANDREWS and Miss ANKENEY.

6. ELEMENTS OF CHEMISTRY—Lectures four times a week, second semester. Dr. VON ENDE.

Courses 2, 3, and 6 are for juniors. Course 1 is optional with juniors. Courses 1, 4 and 5 are required of seniors.

PHARMACOGNOSY

Professor Teeters

1. This course will take up the history and important features of each drug, the means of identification, constitutents, action, dose and official preparations.

The organic drugs of the United States Pharmacopœia will be considered in the following order: roots, rhizomes, tubers, and bulbs, twigs, woods and barks.

Due stress is given to each drug in consideration of its importance to the pharmacist.

Specimens are furnished to students for home study, and the students' ability to identify the vegetable drugs is tested.

Junior Year, two hours each week throughout the year.

2. A continuation of course 1. Taking up leaves and leaflets, herbs and flowers. fruits and seeds and the vast number of miscellaneous and more important unofficial drugs.

Senior Year, two hours each week, throughout the year.

BOTANY

Professor Shimek

Three courses are offered in Botany.

1. This course is devoted to an inquiry into the life and growth of the plant. Special attention is given to the various products of the plant-cell which are revealed by the microscope, and their source, mode of formation, and purpose are discussed. The course includes laboratory work with the microscope, and evening lectures illustrated by stereopticon views.

Junior year, first semester. Two hours each week.

2. General Botany—This course is devoted to a careful study of the elements of the science. The various organs of the plant are reviewed and the local flora is made to afford abundant material to illustrate, in the hands of the student, the morphology of roots, stems and leaves, as well as the ordinary principles of floral analysis, and the means of specific identification. Types of the principal orders of greatest economic value are studied in detail, and special attention is given to the spring medicinal flora. In order that the student may also acquire some familiarity with the

rich autumnal flora this course is continued for four weeks in the first semester of the senior year.

Junior year, second semester. Two hours each week.

3. MICROSCOPIC TECHNOLOGY—This course includes instruction in the use of the compound microscope, and its employment in the investigation of vegetable structures. The student is supplied with an instrument and all necessary reagents and apparatus, and is taught the various modes of cutting, staining, and mounting histological preparations. Practical instruction is given in the use of the microscope in the identification of crude drugs, as well as in the detection of adulteration. Each student taking this course prepares at the laboratory for his own use a cabinet of microscopic slides, illustrative of many of the more important official drugs.

Senior year. Two hours each week, throughout the year after the first four weeks.

MATERIA MEDICA

PROFESSOR CHASE

1. A knowledge of the action of drugs can be obtained by the student of pharmacy only by empirical or rational methods. Since the former being based upon clinical observation of their uses, is obviously beyond his reach, the latter, or rational method is followed. Since this is based upon the observed or known action of drugs upon living animal cells, tissues, organs, apparatuses, etc., it is necessary that the student should be given an elementary course in Physiological Materia Medica. To this end the first weeks of the course in Materia Medica are devoted to familiarizing the student with anatomical structures and their functions in so far as these are related to the subject of drugs and their action.

Junior year. One hour each week, first term, first semester. Professor CHASE.

2. After the preceding course the student is given preliminary definitions of the subject; also the definition of such terms as alkaloids, leucomaines, ptomaines, etc. The various official preparations are defined and discussed. The routes and modes of administration of remedies, and their physiological and toxicological action are likewise considered. The

subjects of dosage and incompatibilities as related to prescription-writing, are presented; the former finally, the latter begun, to be continued as a parallel study in the consideration of individual drugs.

Junior year. One hour each week, second term, first semester. Professor CHASE.

3. The origin, source, composition, chemical characteristics, physical properties, modes of preparation and of administration, and physiological and toxicological action of drugs of the organic Materia Medica are begun.

Junior year. One hour each week, second semester. Professor CHASE.

4. Continuation of the preceding course. The student is required to complete the transcription of the text, begun in the preceding course and used by him in his study, in a notebook specially prepared for such purpose, with a view to aiding his memory. He is also given drill in prescription-filling and interpretation. The organic Materia Medica is thus completed.

Senior year. One hour each week, first semester. Professor CHASE.

5. Serum-therapy, Antitoxins, Organic Extracts, Vaccine-virus, etc., will furnish topics to be specially considered in this course. These topics and the subjects of Emergencies, and First-Aid-to-the-Injured, and how they may be met by the pharmacist in the absence of the physician, with a final review will conclude the entire subject.

Senior year. One hour each week, second semester. Professor CHASE.

TOXICOLOGY

DR. ROCKWOOD

The general action of poisons is first considered, then the most important poisons are treated separately. Their physical properties and chemical action are noticed, together with their uses, and most common sources of poisons as toxicological agents. The symptoms of the different classes are given, and the treatment for each. Especial attention

is paid to antidotes. Methods of testing suspicious substances, as well as the examination of secretions and excretions, are explained and illustrated by experiments.

Senior year. One lecture each week, throughout the year.

PHARMACY LAW

Professor H. S. Richards, of the College of Law, will deliver a short course of lectures treating of the validity and construction of laws especially restraining the practice of pharmacy; of the liability of pharmacists both criminal and civil, for their own violations of laws and that of their agents. Second semester.

QUALIFICATIONS FOR GRADUATION

Every person upon whom the diploma of this College is conferred must be of good moral character, must have arrived at the age of twenty-one years, must have attended two full courses of lectures, including two full courses of pharmaceutical, microscopical, and chemical laboratory practice, the last one of which shall have been in this College, and must pass satisfactory written examinations in all the branches taught in this College. He will then be entitled to the degree of Graduate in Pharmacy (Ph. G.).

FINAL EXAMINATIONS

The examinations of candidates for graduation will take place during the week preceding the close of the lecture season.

TEXT-BOOKS

Pharmacy—For juniors: *U. S. Pharmacopœia*, Remington's *Practice of Pharmacy*, *National Formulary*. For seniors: All the above, Caspari's *Treatise on Pharmacy*, Coblentz's *Hand-book of Pharmacy*, Scoville's *Art of Compounding*.

Chemistry—*Pharmaceutical and Medical Chemistry* by Sadtler and Coblentz.

Pharmacognosy—Maisch's *Organic Materia Medica.*

Materia Medica—White and Wilcox's *Materia Medica and Therapeutics*, Sayre's *Organic Materia Medica and Pharmacognosy*, Culbreth's *Materia Medica and Pharmacology.*

Botany—Macbride's *Lesson's in Elementary Botany*, Gray's or Wood's *Manual.*

REFERENCE BOOKS

U. S. Dispensatory, *National Dispensatory*, King's *American Dispensatory*, Fresenius's *Analytical Chemistries*, Hoffman and Power's *Examination of Medicinal Chemicals*, Gray's *Botanical Text-Book*, Vol. II.

Schneider's *Powdered Vegetable Drugs*, Flueckiger's *Principles of Pharmacognosy.*

TUITION

The fee for tuition is $75 for each year, of which $50 is payable on entering and the remainder at the beginning of the second semester. There are no extra fees whatever, but for each laboratory course in chemistry or practical pharmacy there is required a deposit of $3 to cover breakage and to insure the return of all keys at the close of the session. This sum (breakage, if any, deducted) is returned to the student on presentation of the certificate of the professor in charge of the laboratory in question.

The above statement of fees is now in effect and will be understood to apply to all students in the College, entirely irrespective of the date of matriculation.

All students who are delinquent in the payment of tuition will be suspended from the College until the tuition is paid.

PRIZES

By the liberality of Mr. John M. Lindly, a prize consisting of Britton & Brown's Illustrated Flora is offered to the student of the senior class who shall bring from his home county the best herbarium of not less than fifty plants. The candi-

date before receiving the prize must become a member of the University Pharmacy Alumni Association, and the collection shall become the property of Mr. Lindly.

The prize was awarded in 1902 to Andrew W. Nixon, of Geneseo, N. Y.

The Alumni Association of the College extends a free membership to the member of the graduating class attaining the highest general average in all branches.

Awarded '02 to Paul Hanzlik, of Cedar Rapids, Iowa.

Membership in the American Pharmaceutical Association is offered by Professor Wilber J. Teeters to the member of the senior class who by competitive examination is rated highest in recognition and description of organic drugs.

WEIGHTS AND MEASURES

The State standards of weights and measures are kept at Iowa City, under the direct supervision of L. G. Weld, Professor of Mathematics and Astronomy, and Dean of the Graduate College.

MUSEUM

Pharmacists of the State are requested to send to Prof. Wilber J. Teeters, Director of the Pharmaceutical Laboratory, curios, such as old books, old prescriptions, old apparatus, or other material that will indicate, for educational purposes, the history and progress of Pharmacy in Iowa. All such contributions will be prominently displayed in cabinets provided for the purpose and labeled with the names of the donors.

READING ROOMS

Reading and reference libraries are maintained in connection with the chemical, botanical and pharmaceutical laboratories. In the latter, the leading current drug journals are kept on file.

E. L. B. CLUB

The E. L. B. Club, the scientific society of the College, was organized in 1901 to give opportunity for the discussion of subjects of general and practical interest to pharmacists.

Meetings are held every two weeks and all the students of the College become members by signing the Constitution. It offers social and intellectual advantages and practice in public speaking.

For further particulars address Emil L. Boerner, Dean of the College of Pharmacy.

ALUMNI ASSOCIATION

The Alumni Association takes a deep interest in the work of the College. Yearly meetings are held on Commencement Day and the procedings of the Association are published together with the register of Alumni. Officers for 1902-03 are:

President—A. F. KOCH, Middle Amana.

First Vice President—J. A. GOODALL, Sioux City, Iowa.

Second Vice President—C. G. PARK, Wilton, Iowa.

Recording Secretary—F. W. MILLER, Homestead, Iowa.

Corresponding Secretary—A. F. LONGWELL, Wellman, Ia.

Treasurer—J. S. MUTCHLER, Iowa City, Iowa.

Executive Board—W. F. JUNGER, Reinbeck; F. W. MILLER, Homestead; ZADA M. COOPER, Iowa City.

Alumni are requested to keep the Secretary informed of change of address.

STUDENTS IN ALL THE COLLEGES

THE COLLEGE OF LIBERAL ARTS

DEGREES CONFERRED JUNE, 1902

BACHELOR OF ARTS

Abbott, Frederick Hiram
Abernethy, Clara Louise
Bailey, Katherine Ethel
Bell, William Bonar
M. Di., 1899, Iowa State Normal
Brackett, Merritt
Casady, Thomas
Currier, Albert Moore
Delavan, George Edwin, Jr.
Dykstra, Sylvester Henry
Farrell, Thomas
Filer, Paul Schenck
Fitch, Eva Lillian
Fitch, Harry Holland
Graham, Joseph W.
Henry, Ward Casady
Hollenbeck, Henry Stanley
Kent, Grace Helen
Lorenz, Charlotte Marie
McCutchen, Lydia May
Mark, John H.
Martin, John Weston
Maudlin, Mina May
Mingus, Edna M.
Mueller, Eugene Fred
Randall, Frank Hall
Reppert, Emma Le Maitre
Rich, David W.
Roberts, Carl Eckley
Smith, Mabel Clare

BACHELOR OF PHILOSOPHY

Achenbach, Naomi
M. Di., 1900, Iowa State Normal
Allin, George R.
Barber, Myrtle
Barrett, Anna Moore
Bemis, Frances Perl
Boddy, Marshall Vincent
Butler, Lindley Moses
Carder, Helen L.
Clearman, Rollen Ives
Close, Katherine Stevens
Davis, Florence Mabel
Dayton, Leona Mellie
Kirby, James Francis
Lowman, Stella Elizabeth Gilmour
Luhman, Frederick Henry
McVay, Albert Dennis
Mather, Rachel Evans
Mead, Ray C.
Mehaffy, John Milton
Minkel, Lewis Herman
M. Di., 1895, Iowa State Normal
Moler, Margaret Imo
Mueller, Mary Theresa
Otto, Lucia Caroline
Parsons, Ella Beckley

Ede, Ernest D.
Eller, Chester John
Emry, Frederick Grant
Espeset, James Howard
Estes, Reuben Marion
B. Di., 1900,
Iowa State Normal
Ford, D. Fae
Funson, Harry Shugart
Geyer, Ellen
Giese, Charles Oscar
Henry, Carl Jeffrey
Hull, Pearl
Huntington, Harry Garfield
Joy, Florence Livingston
Kierulff, Anna Edwards
Kingsbury, Maud Cleaveland
Peterson, Nina Margarethe
Quigley, Sarah Ruth
Remley, Alfred G.
Rhynsburger, Henry John
Seerley, Florence
Silvius, Reuben Andrew
Stein, Lollie Alvine
Storey, Leslie
Stuart, Clara
Sunier, Fanny Annette
Switzer, Grace Ellen Elizabeth
Truman, Emma Victoria
Tulloss, Carolyn M.
Weber, Frederick Henry
Williamson, Ralph Clinton
Willis, Faith Gertrude
Wilson, Mary Alwilda

BACHELOR OF SCIENCE

Allen, Henrietta Frances
Allen, Ray Wallace
Anthony, Charles Henry
Bailey, Frederick William
Barr, William Milton
Boehm, Walter Martinus
Byrnes, Ralph Leonidas
Collins, Edward Robert
B. S., 1895, Southern
Iowa Normal
Cory, Charles Seldon
M. Di., 1900, Iowa State
Normal
DuBois, Walter Lynn
Eberhart, Frank Vaughan
Ewers, Albert Francis
M. Di., 1900, Iowa State
Normal
Fairall, Herbert Snowden, Jr.
Grillet, Ida Louise
Hoover, Alden Robbins
Krause, Charles Schutz
Macy, Clarence Spencer
Paarmann, Juergen Herman
Rosser, Bert Paul
Speidel, Homer Vincent
Storck, Arthur Herman

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Burrier, Emmett Francis
B. S., 1901
Hayler, George Rex
Manhard, Edward
Marsh, Richard Dana

BACHELOR OF DIDACTICS

Daum, Selma A.

The following students completed the requirements later and have been recommended by the Faculty to the Board of Regents for degrees as indicated:

BACHELOR OF ARTS

Baker, Jay Felts
Kampmeier, August

BACHELOR OF PHILOSOPHY

Albert, Fred, Jr.
Bozarth, Maud
Curtis, Alice Bertha
Foster, Blanche Fairfax
Huggett, J. Percival
Johnson, Henry Charles
MacKellar, Jennie Edith
Meyerholz, Charles

BACHELOR OF SCIENCE

Walsh, John Graney

SENIORS

Anderson, Rudolph Martin	Ph. B.	Iowa City
Aurner, Clarence Ray	Phil.	Iowa City
M. Di., 1891, Iowa State Normal		
Aurner, Mrs. Nellie Slayton	Ph. B.	Iowa City
Barrett, Jacob Edward	Ph. B.	Dunlap
B. Di , 1900, Iowa State Normal		
Benson, Ernest Allen	Sci.	Iowa City
B. A., 1900, Western College		
Berryhill, James Guest, Jr.	Ph. A.	Des Moines
Blackmar, Harry E.	Ph. B.	Emmetsburg
M. Di., 1894, Iowa State Normal		
Brown, Maud Anna	Ph. B.	Marengo
Burmeister, August Otto	Ph. B. & L. c.	Adair
Call, Roy Guyon	E. E.	Iowa City
Carlson, Ernest Emil	C. E.	Battle Creek
Carter, Edward Albert	Ph. B.	Muchakinock
Charlton, Max Rosecrans	Sci.	Clear Lake
Choate, Rufus Clark	C. E.	Iowa City
Clapp, Albert Carpenter	Sci.	Shelby
Coast, William Oscar	Sci.	Iowa City
*Conley, Agnes Mercedes	Ph. A.	New Hampton
Cooper, Esther Leiper	Ph. B.	Winterset

*Died Nov. 4, 1902.

Cronin, Sarah Elizabeth	Sci.	Waukon
Currier, Albert Moore	C. E.	Iowa City
Curtis, Alice Bertha	Ph. B.	Allison
Dakin, Amy Dorothy	Ph. B.	Mason City
Dalton, Ula Elizabeth	Cl.	Jesup
Drewry, Ray Forest	Ph. B. &L. c.	Sac City
Dykstra, Clarence Addison	Cl.	Rochester, N. Y.
Eddy, Mary Louise	Ph. A.	Marengo
Edmondson, Charles Howard	Ph. B.	Iowa City
Elliott, Ethel Anna	Cl.	Marshalltown
Fenton, Jennie Inez	Ph. B.	Eldora
Fish, James Wilson,	Ph. B.	Britt
Foster, Blanche Fairfax	Ph. B.	Iowa City
B. Di., 1898, Indiana State Normal		
Gardner, Frances Maud	Cl.	Avoca
Gay, Anna May	Cl.	Conesville
Greene, Galen Edwin	Cl. & L. c.	Greene
Hagler, Elisha Marion	C. E.	Milton
Hanson, Clarence Henry	Sci. & M. c.	Fort Dodge
Harris, Fred Elwon	Ph. B.	Woodward
Hayes, Elenora Byington	Cl.	Villisca
Hermann, Cornelia Josephine	Phil.	Koszta
Hess, Adam Konigmacher	Ph. A.	Council Bluffs
Hill, George Edgar	Ph. B.	Burlington
Hossfeld, Eleanor	Ph. B.	Clermont
Huggett, J. Percival	Ph. B.	Iowa City
M. Di., 1892, Iowa State Normal		
Hussey, Lena Alice	Ph. B.	Independence
B. Di., 1893, Iowa State Normal		
Hutchison, George Gaylord	Ph. B.	Lake City
Jarvis, Carolyn Belle	Cl.	Burlington
Johnson, Eliza Love	Sci.	Iowa City
Joynt, Martin John	Sci, & M. c.	Emmetsburg
Kampmeier, August	Cl.	Iowa City
Keck, Walter L.	Phil. &L. c.	Maquoketa
Kelley, Edmund Levi, Jr.	Ph. A.	Lamoni
Keeley, Richard Carlyle	Cl.	Lamoni
Kemmerer, Chas. Tilghman, Jr.,	Ph. A. &L. c.	Eldridge
Kemmerer, Leila	Ph. A.	Eldridge
Kemmerer, Sara Dorcas	Ph. A.	Eldridge
Krebs, Robert D.	Cl.	Cedar Rapids

Loizeaux, Jennie Olive	Ph. B.	Des Moines
McClain, Henry Griffiths	Cl.	Iowa City
McLaughlin, Eleanor	Ph. B.	Mason City
McVay, Albert Dennis	C. E.	Iowa City
Macbride, Jean	Ph. B.	Iowa City
Matthews, Lillian Ruth	Ph. B.	Sioux City
May, Samuel Thomas	Ph. B.	Hawarden
1890, Northern Indiana Normal		
Merritt, Edith Whitney	Ph. A.	Iowa City
Moore, Ella Elizabeth	Cl.	Fort Dodge
B. Di., 1899, Iowa State Normal		
Moravec, Agnes Emma	Ph. A.	Belle Plaine
Morton, Helen Louise	Ph. A.	Iowa Falls
Mueller, Otto Henry	Cl.	Iowa City
Murphy, Genevieve Beatrice	Cl.	Iowa City
Murray, Mary	Ph. B.	Maquoketa
Neallery, Edward Moses	Cl.	Burlington
Nugent, Francis	C. E.	Iowa City
Padmore, Julia Rachel	Cl.	LeMars
Page, Charles Price	C. E.	Iowa City
Pierce, Juliette	Ph. A.	Manchester
B. Di., 1901, Iowa State Normal.		
Porter, Mary Montgomery	Cl.	Albia
Pratt, Harlow Munson	Sc. & L. c.	Iowa City
Pratt, Mrs. Margaret Allie Tobin	Cl.	Iowa City
B. Di., 1900, Iowa State Normal		
Preston, Clara Carlton	Ph. B.	Elkader
Quigley, Marjorie	Cl.	Iowa City
Rall, Carolyn Louisa	Ph. A.	Cedar Falls
Reed, Ivy Leslie	Ph. B.	Hepburn
B. Di., 1899; M. Di., 1900, Iowa State Normal		
Resser, Jesse	Ph. B.	Perry
Roach, Lena	Ph. A.	Rock Rapids
Rutledge, Herbert Alvin Ingram	Sci.	Williamsburg
B. M. E., 1894, Iowa State College		
Scallon, Hubert William	Ph. A. & L. c.	Ackley
M. Di., 1901, Iowa State Normal		
Schenk, Casper	Phil.	Waterloo
M. Di., 1899, Iowa State Normal		
Spangler, Harrison Earl	Ph. B.	Adair
Speidel, Ida Theresia	Sci.	Iowa City
Stefansson, Vilhjalmr	Phil.	Grand Forks, N. D.

Stover, Samuel Kirkwood	E. E.	Iowa City
Swaggart, Luman Birch	Ph. B.	New Providence
M. Di., 1898, Iowa State Normal		
Sweney, Marshall Charles	C. E.	Osage
Switzer, Katherine May	Cl.	Iowa City
Thomas, Seth	Ph. A.	Letart, W. Va.
Walsh, John Graney	Sci.	Perry
Ward, Martha Viola	Sci.	Montour
Wassam, Clarence Wycliffe	Ph. B.	Iowa City
B. Di., 1899; M. Di., 1900, Iowa State Normal		
Watson, Harry Chibnail	Cl. & L. c.	Emmetsburg
Welch, Hershey Samuel	Sci.	North Platte, Neb.
West, Clifford Bateman	Sci.	Oskaloosa
Whitley, Gladys Call	Cl.	Webster City
Wright, Charles Oliver	C. E.	Tipton

JUNIORS

Adams, Waldo Johnson	Sci.	Eugene, Ore.
Alexander, Bertha Evelyn	Phil.	Burlington
Allstrand, Mae Belle	Cl.	Missouri Valley
Ballard, George Henry	Sci.	Charles City
B. A., 1890, Northern Indiana Normal		
M. Di., 1900, Iowa State Normal		
Bartholow, Claude Alpheus	C. E.	Yale
Beaulieu, Leo Victor	Cl.	Sheldon
Bedford, Lyman Daniel	Ph. B.	Hudson
Blaine, Lela Rebecca	Phil.	Council Bluffs
Blum, Daisy Pearl	Cl.	Rossville
Bosley, Roy Harrison	Ph. B.	Adair
Brackney, Herbert Winfield	Ph. B.	Washta
Brainerd, Helen Louise	Ph. B.	Iowa City
Briggs, Charles Orin	Ph. B.	Red Oak
Bryson, Harold Lewis	Ph. B.	Iowa City
Burgum, Harry Pitkin	C. E.	Oelwein
Chesley, Frank Ephraim	C. E.	Iowa City
Clearman, Albert Edward	C. E.	Iowa City
Cogswell, John Wilkinson	Sci. & H. M. c.	Cedar Rapids
Crane, Ernest B.	C. E.	Dexter
Crawford, Tillie Jane	Cl.	Wellman
Cross, Cash R.	Sci.	Iowa City

Cushing, Raymond George	Cl.	Exira
Davis, Odin Royston	Ph. B.	Eldora
DeBusk, William Hayden	Cl.	Panora
Donovan, Louis Patrick	Ph. B.	Eagle Grove
Dorweiler, Paul	Sci.	West Bend
Dunlap, Fanny	Phil.	Ofallon, Mo.
Dye, Harvey Leroy	C. E.	Macedonia
Eckhard, George Frederick	C. E.	Cedar Falls
M. Di., 1900, Iowa State Normal		
Edgerton, Robert Henry	Ph. B.	Muscatine
Fleming, Ruth	Cl.	Omaha, Neb.
Foster, Charles Clarence	C. E.	Iowa City
Gates, Ernest H.	E. E.	Sheldon
Heard, Mary Kathrina	Ph. B.	North East, Penn.
Ph. C., 1892, The University of Michigan		
Hellburg, Will Fred	Ph. B,	Anamosa
Heminger, Amos Lincoln	Ph. B.	Keosauqua
Hill, Eddy Cecil	Phil.	Iowa City
M. Di., 1900, Iowa State Normal		
Hoffman, Mabel V.	Cl.	Muscatine
Hofmann, Minnie	Sci.	Ottumwa
Ivins, Harry Morgan	Sci.	Grundy Center
Jackson, Edwin Roy	Sci.	Avoca
Johnston, Edward Ray	Ph. B.	Iowa City
Kent, Carl Volney	Sci.	Marshalltown
Kern, Frank Dunn	Ph. B.	Reinbeck
Kleinsorge, Rudolph Ernst	Sci.	LeMars
Knupp, Samuel C.	Sci.	Garrison
M. Di., 1902, Iowa State Normal		
Kriechbaum, Bertha Emily	Ph. A.	Burlington
Landers, Lou Cornelia	Sci.	Webster City
Lauer, Arnold William	Ph. A.	Winfield
Lewis, Laura Iowa	Sci.	Macedonia
Lilly, Fanny Parmer	Ph. A.	Burlington
Lynch, Alice Marie	Ph. A.	Sioux City
McCrory, Samuel Henry	C. E.	Ireton
McLane, Arthur C.	Phil.	Deepriver, N. D.
Magowan, Florence Nettie	Ph. B.	Tama
Martin, Katheryn	Ph. A.	Iowa City
Meakim, Roger Joseph	Sci.	West Burlington
Melzner, Arthur Burdell	Ph. B.	Yankton, S. D.

Moffatt, Burnam A.	C. E.	Marshalltown
Morris, Mary Makepeace	Ph. A.	Atlantic
Moulton, Lulu	Ph. A.	Maquoketa
Newman, Clarence Adelbert	Ph. A.	Edgewood
Pattie, Martha	Phil.	Storm Lake
Peters, Alice Gilchrist	Sci.	Ottumwa
B. Di., 1897, Iowa State Normal		
Quigley, Samuel	Cl.	Brighton
B. Di., 1895, Iowa State Normal		
Raguet, Marguerite	Phil.	Davenport
Royal, Malcolm Allen	Sci. & H. M. c.	Des Moines
Savage, John Elton	Ph. B.	Hebron
Schaefers, Rose Theresa	Ph. B.	Clermont
Schenck, Charles Plume	Sci.	Burlington
Schneider, Daniel Detrich	Phil.	Hinton
M. Di., 1902, Iowa State Normal		
Seerley, Clem Clifford	Sci.	Cedar Falls
M. Di., 1901, Iowa State Normal		
Smith, Alta Grace	Ph. B.	Harlan
Smith, Maude Louise	Ph. B.	West Liberty
Spaulding, Edmund Holden, Jr.	Sci.	Westfield
Speidel, Mae Elizabeth Agnes	Cl.	Iowa City
Sporleder, Mary Louise	Ph. A.	Iowa City
Swire, Ethelind	Ph. B.	Iowa City
Taylor, Maude Estella	Sci. & M. c.	Iowa City
Thomas, Abram Owen	Ph. A.	Williamsburg
Thompson, Elizabeth	Ph. B.	Armstrong
Thompson, John Wesley	Ph. B.	Wapello
Welch, David Sewall	Sci.	Glenwood
White, Warren Henry	Cl.	Iowa City
Willis, Harry Douglas	C. E.	Iowa City
Young, Iowa Madge	Cl.	Iowa City

SOPHOMORES

Aardappel, Walter	C. E.	Sioux Center
Adams, Mary Annette	Ph. A.	Shelby
Allen, Burritt Steward	Ph. B.	Laurens
Anderson, Harold Charles	Ph. A.	Oelwein
Ball, Walter McDowell	Sci. & M. c.	Iowa City
Ballard, Martha Frances	Sci.	Davenport

Ballard, Mary Elizabeth	Ph. B.	Iowa City
Barker, Erwin Jeremiah	Ph. B.	Cresco
Barrett, Edward Cecil	Ph. A.	Burlington
Beauchamp, Bertha Ewing	Cl.	Bedford
Berry, John Williams	C. E.	Iowa City
Blakely, Ernest Reuben	C. E.	Corydon
Boerner, Edna Louise	Ph. A.	Iowa City
Boies, Harry Edward	Ph. B.	Missouri Valley
Bowman, Clarence Henry	C. E.	Solon
Bradley, Frank Timothy	Sci. & M.c.	Iowa City
Brant, Lucy Winifred	Phil.	Iowa City
Brinton, William Thomas	Phil.	Brighton
Brown, Earl	Ph. A.	Emmetsburg
Buffum, Mary Susan	Ph. B.	LeRoy
Burbank, Manus Combs, Jr.	Cl.	Missouri Valley
Burnquist, Bert Blaine	Ph. A.	Ft. Dodge
Butler, William Pinkney	Cl.	Marshall, Texas
Call, Merlyn Bush	Cl.	Iowa City
Carlson, Christian R.	Ph. B.	Humboldt
Caster, Charles Edward	E. E.	Burlington
Chase, Nellie Althea	Ph. B.	Waterloo
Chase, Olive Merrill	Ph. A.	Waterloo
Coffin, Frank W.	Sci.	Columbus Junc.
Corlett, Robert Kinley	Sci.	Iowa City
Crane, Agnes Mae	Phil.	Mason City
Cratty, Mabel Estelle	Phil.	Armstrong
Danielson, Henry Clarence	C. E.	Lamoni
Davidson, Lois Craig	Ph. A.	Estherville
Davies, Robert Geiser	Cl.	Waterloo
DeHart, Otto Dell	C. E.	Milton
DeSellem, Anna Louise	Ph. B.	Iowa City
Drake, Guy Arthur	Ph. B.	Adel
Emmert, Max Washabough	Cl.	Atlantic
Everett, Emma Dolorosa	Phil.	Cosgrove
Fagan, Ralph Mather	Ph. B.	Shelby
Fair, Etta Pearl	Ph. A.	Agency
Fay, Wylie Webb	Ph. B.	Nevada
Files, Ray	Ph. B.	Iowa City
Finkbine, Robert Hoyt	Sci.	Des Moines
Gabriel, Grace Ethel	Cl.	Des Moines

Gordon, Arthur Clarkson	Cl.	Iowa City
Gordon, Pearl Avis	Ph. B.	Hamilton, Ill.
Green, John Reuben	Ph. B.	Onslow
Griffith, Dwight Moody	Cl.	Iowa City
Griffith, Grace	Ph. A.	Iowa Falls
Hartsock, Margaret Ellen	Ph. B.	Iowa City
Haskins, Ernest Herbert	Ph. A.	Adel
Hayden, Clara May	Sci. & M.c.	Eldon
Hennessy, Edward Francis	Ph. B.	Strawberry Point
Hershire, Richard Aaron	C. E.	Iowa City
Hodge, Lida Jane	Ph. B.	Indianola
Holmes, Grace Maude	Phil.	Waterloo
Hummer, Sarah Agatha	Ph. B.	Iowa City
Hutchinson, Everett Ross	Sci.	Allerton
Kimple, Mae Belle	Ph. B.	Corydon
Knapp, Carl William	Cl.	Fremont, Neb.
Kruse, Paul Jehu	Cl.	Boone
Kunz, John Franklin	Ph. B.	Wesley
Lahman, Rush Clark	Ph. B.	Missouri Valley
Lambert, Clarence Joseph	Ph. B.	Adrian, Ill.
Lister, Clarence Sylvester	Sci.	Manchester
Long, Cecile Florence	Cl.	Bedford
Louis, Anna	Sci.	Harlan
McAuliff, Leslie	Cl.	LeMars
McMinn, George Rupert	Cl.	Burlington
McVay, Mary Alice	Ph. B.	Iowa City
Marick, George Louis	C. E.	Allerton
Martin, Lenore Lilian	Phil.	Iowa Falls
Mayne, Herman Charles	Cl.	Algona
Merritt, Mabel Clough	Ph. A.	Iowa City
Metzger, Belle Agnes	Cl.	Iowa City
Metzger, Della Elizabeth	Cl.	Iowa City
Miller, Dalton Giles	C. E.	Guthrie Center
Moffitt, Chester Earl	Ph. B.	Fonda
Moling, Lura May	Phil.	Iowa City
Morgan, Frank Sonun	Ph. A.	Harlan
Morris, Harry Renard	C. E.	Denison
Murphy, Charles Alonzo	Ph. B.	Laurens
Naberhuis, Henry Albert	C. E.	Sioux Center
Neander, Victor Theophilus	Ph. B.	Cambridge, Minn.
Negus, Joseph Elisha	C. E.	Iowa City

Nichols, Ethel Gay	Ph. B.	West Liberty
O'Connell, John Francis	Cl.	Atlantic
Olinger, Reuben James	Cl.	California
Paine, Sarah Olivia	Ph. B.	Iowa City
Patton, Ruby Emma	Sci.	Dexter
Phelps, Henry Hurst	Sci.	Springdale
Phelps, Howard Lynn	C. E.	Springdale
Randall, Ray	Sci.	Denison
Reherd, Mary Louise	Ph. B.	Geneseo, Ill.
Rex, May	Phil.	Creston
Robertson, Agnes Hendrie	Phil.	Cedar Rapids
Ross, Carl Wesley	Cl.	Des Moines
Scarr, Furniss Morton	Ph. B.	Cumberland
Schroder, Ralph	Sci.	Traer
Schultz, Clara Mary	Ph. A.	Burlington
Sebern, Nellie Brewer	Cl.	Vinton
Shaw, John Austin	C. E.	Vinton
Sherwood, Elizabeth Julia	Cl.	Iowa City
Skelley, Silas Emmett	Ph. B.	DeWitt
Smith, Matilda Annie	Phil.	St. Ansgar
Snedicor, Fred Elwyn	Ph. B.	Cherokee
Soesbe, Carrie May	Cl.	Greene
Stoops, Wade Carlisle	C. E.	West Liberty
Struble, Isaac Irving	Ph. A.	LeMars
Sunier, Bertha	Cl.	Iowa City
Tweed, Horace Anton	Sci.	Forest City
VanDeSteeg, George Herbert	Ph. B.	Orange City
VanderZee, Jacob	Cl.	Sioux Center
Veblen, Agnes Kari Anne	Cl.	Iowa City
Veblen, Gertrude Ingeborg	Phil.	Iowa City
Veblen, Signy Arndora	Ph. A.	Iowa City
Waterbury, Ella Irene	Cl.	Iowa City
West, George Parsons	Cl.	Sioux City
West, Philip Cecil	Cl.	Irwin
Whitacre, Max	C. E.	New Sharon
Wiehr, Josef	Ph. B.	Iowa City
Wiley, Stella Lucile	Ph. A.	Castana
Wille, Otto Victor	Sci.	Iowa City
Williams, Etta Louise	Ph. B.	Parkersburg
Wilson, Clara Rosa	Phil.	Iowa City
Wilson, Helen Benton	Ph. A.	Des Moines

Wolf, Bertha Sarah	Ph. A.	Tipton
Wright, William Coutts	E. E.	Tipton
Wyland, Benjamin Franklin	Ph. A.	Harlan
Young, Hugh Edward	C. E.	Anamosa

FRESHMEN

Adams, Nina Elsie	Phil.	Shelby
Albright, George Carter	Phil.	Danville
Anderson, Anne Marie	Phil.	Lyons
Ballard, Eugenia Maria	Ph. B.	Iowa City
Banta, George Sherman	Phil.	Manchester
Battles, Pearle Mae	Sci.	Maquoketa
Bauman, Ina Millie	Phil.	Nashua
Bean, Arthur Neal	Sci. &M.c.	Eagle Grove
Beatty, Floyd James	Sci.	Tipton
Beatty, Mame Bevington	Phil.	Iowa City
Bevins, Nathan Sidney	Sci.	Hawkeye
Bissell, Beulah Davies	Phil.	Independence
Block, Mattie	Phil.	Atlantic
Blum, Effie Clare	Phil.	Rossville
Bollinger, Ann Ethel	Phil.	Iowa City
Bos, Garrett	E. E.	Pella
Bowen, Murrel K.	Sci.	Irwin
Bowen, Mabel Meardon	Cl.	Iowa City
Boysen, Laura Maria	Sci.	Glenwood
Bradley, Benjamin Graham	C. E.	Iowa City
Brainerd, Howard Hatch	Phil.	Iowa City
Breckenbaumer, Harry Ernest	Phil.	Lewis
Breese, Garfield Eugene	C. E.	Iowa City
Brittell, Chancey Lee	Sci.	Maquoketa
Britton, Zoe	Sci.	Cedar Falls
Brown, Augusta	Phil.	Wall Lake
Bruins, William John	C. E.	Sioux Center
Buckley, Grace Emma	Phil.	Shelby
Burge, Edith	Phil.	Iowa City
Burkheimer, Ira Arthur	Phil.	Creston
Carroll, Frances Alma	Phil.	Harlan
Casey, James Wesley	Phil.	Correctionville
Catlin, Frank Milo	Phil.	Creston
Champion, Roy B.	E. E.	Iowa City

Clark, Gertrude Lorraine	Phil.	Batavia
Clearman, Louise Isabella	Cl.	Iowa City
Cohoon, Brock Edwin	Phil.	Emmetsburg
Cole, Viva Victoria	Phil.	Britt
Cooper, Frederick Richard	Phil.	Ottumwa
Corso, Ignatia	Phil.	Iowa City
Coulter, Wilbur Edwin	Phil.	Burlington
Crossan, John Wesley	Phil.	Eldora
Darland, Grace	Sci.	Iowa City
Daum, Philip Hugh, LL. B., 1897.	Sci.	Davenport
Davidson, Orin Victor	Phil.	Burlington
Dean, Basil	C. E.	Spencer
Dennis, Edna Clementine	Ph. B.	Iowa City
Doty, Eula	Phil.	Larned, Kan.
Dow, Harry Earnest	Cl.	Denmark
Duncan, Cleveland Reuben	Sci.	Iowa City
Dunlap, Marcia	Phil.	Ofallon, Mo.
Easton, George Eugene	Phil.	Strawberry Point
Ebersole, Edwin Christian	Phil.	Iowa City
Eckhardt, Henry Jacob	C. E.	Davenport
Edinger, Paul Frederick	Cl.	Davenport
Elbert, Hoyt Hugh	Ph. B.	Red Oak
Felkner, Anne Winslow	Phil.	Iowa City
Felts, Stanley Evans	Phil.	Des Moines
Field, Agnes Jeannette	Phil.	Humboldt
Fitz, Earle Moore	Phil.	Panora
Fitzgerald, Edward Clarence	Phil.	Rock Rapids
French, Hiram Earl	Phil.	Humboldt
French, Royal F.	Phil.	Humboldt
Fullerton, Robert Parsons	Sci.	Des Moines
Gelderblom, Murray Edward	E. E.	Knoxville
Gibbs, Charles John	Phil.	Harlan
Goetz, Antoinette	Ph. B.	Iowa City
Goetz, Antony Lewis	Sci.	Iowa City
Goodwin, James Edwin	Sci.	Burt
Gregory, Horace Whiting	Ph. A.	Denison
Halderman, Virginia M.	Cl.	Avoca
Hannum, Roy Findley	Phil.	Winfield
Healy, William	Phil.	Lisbon
Heffner, John Samuel	Phil.	Duncombe

Hemmer, Emil John	C. E.	Iowa City
Hinkle, Bessie Catherine	Ph. B.	Harvard
Hinkle, Jessie Ellen	Ph. B.	Harvard
Hobby, William Richard	C. E.	Iowa City
Holsteen, Dio Mark	Sci.	Burlington
Hubbard, Elbert Hamilton	Phil.	Sioux City
Hutchison, Raymond Orrin	Phil.	Lake City
Illick, John Theron, Jr.	Phil.	Burlington
Isenberg, Irving Ray	C. E.	Green Mountain
Jacobs, Sadie	Phil.	Burlington
Jamison, Jeannette	Phil.	Burlington
Jones, Ralph Emerson	Phil.	Williamsburg
Jones, Wata Jane	Phil.	Iowa City
Joy, William Bixby	Phil.	Iowa City
Kelty, Harland Edward	E. E.	Elma
Keppler, Chester John	C. E.	Iowa City
Knauer, Eda Dorothy	Phil.	Des Moines
Koeper, Frank Earnest	M. E.	Marshalltown
Lancaster, Alice May	Phil.	Le Claire
Lemon, Frank Carl	Sci.	Guthrie Center
Linderman, Lloyd Howe	E. E.	Fredericksburg
Long, Pearl	Ph. B.	Le Claire
Luce, Fred Leslie	Phil.	Villisca
Lynn, Margaret May	Phil.	Iowa City
McClurkin, Oak Beck	Phil.	Morning Sun
McCluskey, Harl Volney	Phil.	Riverside
McKee, Leander Ransom	C. E.	Muscatine
Middleton, William Drummond	Sci.	Davenport
Miller, Margaret Jane	Phil.	Iowa City
Mingus, Florence Mary	Phil.	Iowa City
Money, Fred Bertholdo	Sci.	Humboldt
Moon, Herbert Lovelace	Sci. & M. c.	Iowa City
Moon, John Clarence	Phil.	Griswold
Moore, Fred	Phil.	Harlan
Moore, George William	Cl.	McPaul
Mueller, Louis Francis	Cl.	Iowa City
Myslis, Sarah Freda	Phil.	Des Moines
Odell, Florence Margaret	Phil.	Iowa City
Ogden, Elizabeth Jane	Phil.	Williamsburg
Padmore, Grace	Phil.	Le Mars
Pahlas, Henry Martin	Sci. & M. c.	Elkader

Paulson, Caroline H.	Phil.	Britt
Paulus, Martha Ann	Phil.	Iowa City
Payne, Paul Marvin	Phil.	Linden
Pentecost, Verne Reynolds	Sci.	Panora
Perrine, Peter Ralph	Sci.	Burlington
Portlock, Beth M.	Sci.	New London
Preston, Edith	Ph. B.	Oskaloosa
Price, Hiram T.	Phil.	Iowa City
Price, Mildred	Cl.	Iowa City
Pritchard, Kirkwood Alexander	C. E.	Iowa City
Quigley, Louis Leroy	Phil.	Iowa City
Quigley, Robert Crozier	Phil.	Iowa City
Randall, Clifford Alonzo	C. E.	Denison
Read, Ralph Lewis	Ph. B.	Des Moines
Redfield, Roy Addis	Ph. B.	Ruthven
Remley, Agnes	Phil.	Anamosa
Remley, Alice	Phil.	Iowa City
Rider, Thomas Thiel	Sci. & D.c.	Iowa City
Rink, Clarence William	Phil.	Shelby
Rinker, Purley	Ph. B.	Seymour
Rittenmeyer, Adelaide Alice	Phil.	Iowa City
Robinson, Agnes Louise	Phil.	Council Bluffs
Robinson, Vincent James	Phil.	Harlan
Royal, Myrtle Emeline	Phil.	Des Moines
Ruby, Sarah Amelie	Phil.	Lake Mills
Ruff, Edward John	C. E.	Wilton Junction
Salisbury, Herbert John	Phil.	Cresco
Schaeffer, Oma Georgia	Phil.	Iowa City
Schichtl, Caroline Magdalene	Cl.	Algona
Schmidt, Gustav Paul	M. E.	Iowa City
Secrest, Mary	Ph. B.	Downey
Seemann, Fred Julius	C. E.	Iowa City
Severin, Carl Frederick	Phil.	Cedar Falls
Seydel, Fred	Ph. B.	Iowa City
Shedd, Verna May	Phil.	Council Bluffs
Sheldon, Celia Helen	Phil.	Victor
Showalter, Mary Ellen	Phil.	Council Bluffs
Siemen, Edward Anthony	C. E.	Sioux Center
Smith, Addie Mahala	Phil.	Duluth, Minn.
Snyder, Marie Elizabeth	Sci.	Mt. Pleasant
Stach, Anna Catherine	Cl.	Iowa City

Stearns, Robert Wilson	Sci.	Webster City
Steere, Kenneth David	Phil.	Iowa Falls
Stevens, James Merrill	E. E.	Sheldon
Stockdale, Ellen Naoma	Ph. B.	Walcott
Stockdale, Verne Katherine	Phil.	Walcott
Stone, Edna Pearl	Phil.	Burlington
Stoner, Dayton	Sci. & M.c.	Iowa City
Stoner, Nellie Dae	Cl.	Iowa City
Stookey, Marian	Phil.	Leon
Stratton, Frances Eleanor	Ph. B.	Iowa City
Swaine, Robert Taylor	Phil.	Council Bluffs
Swanson, Julia Elmida	Cl.	Webster City
Swisher, Alice	Cl.	Iowa City
Switzer, James Wolfe	Phil.	Galesburg, Ill.
Tupper, Eliakim William	C. E.	Osage
Van Ness, Orpha May	Phil.	Centerville
Van Steenbergen, John	Sci.	Sioux Center
Visser, John C.	Sci.	Pella
Wachs, Anna Frances Rosaline	Phil.	Iowa City
Wallace, Arthur Clarence	Phil.	Rock Rapids
Waterbury, Flora Avis	Sci.	Iowa City
Weber, Eva	Phil.	Corning
Weinrich, August Fred	Phil.	Burlington
Wickman, Henry	E. E.	Malcolm
Woods, Mary Louise	Phil.	Iowa City
Wright, Bert J.	E. E.	Plato
Yergey, Alfred Luther	Sci. & M.c.	Villisca
Younglove, Leah	Phil.	Atlantic

UNCLASSIFIED

Atkinson, William Ira	Clarksville
Ballou, John Kendrick	Miltonvale, Kas.
Barber, Francis Adams	Estherville
M. Di., 1901, Iowa State Normal	
Baughn, Wilmot Lawson	Harlan
Bockenthien, Bertha Madeline	Des Moines
Bryson, Mrs. Stella Gearhart	Iowa City
Burge, Jennie	Iowa City
Carpenter, Mrs. Orville H.	Iowa City
Clapp, Alice Louise	Shelby

Crockett, Luella	Eldora
Donahue, Alice Elizabeth	Iowa City
Eckhard, Lydia B.	Cedar Falls
B. Di., 1896, Iowa State Normal	
Evans, Edith Price	Elgin, Ill.
Ferson, Mrs. Ella Jane	Iowa City
Fitz, David John	Panora
Fitzpatrick, John Michael	Greeley
Fortner, Mrs. Grace Gibson	Waverly
Frazier, Zoe Rae	Nevada
Fritzel, Carl C.	Conrad
Green, Thomas William	Sioux City
Haas, Laura Neely	Iowa City
Haas, Robert Arthur	Shelby
Hayes, Katherine Alice	Muscatine
Hetzel, Olive Belle	Avoca
Hubers, Henry William	Davenport
Isherwood, Genevieve	LeClaire
Jeffers, William Joseph	Red Oak
D. D. S., 1902.	
Jennings, Avery Graham	Council Bluffs
Joy, Clarissa Jane	Iowa City
Kastman, Valborg	Cambridge, Mass.
King, Lylas Sarah	Grundy Center
Landon, Pearl May	New Hampton
Logan, Alida Frances	Chicago, Ill.
McFadden, George Joseph	Atalissa
McGowan, Alva Earl	Clear Lake
McLanahan, Ethel	South English
Meyer, Jacob William	Orange City
Miles, Lulu	Lineville
Miles, Mabel	Lineville
Miller, Claude Melvin	Iowa City
Miller, Stanley	Washington
Mitchell, Lebbeus Horatio	Nevada
Parry, Alice	West Branch
Parsons, Peryl Marie	Newton
Patterson, Aileen	Iowa Falls
Roberts, Grace Estella	Curtis
Rogers, Thomas Lowry	Minburn
Rundell, Mabel Anne	Iowa City

Silver, William Ellsworth — Iowa City
M. Di., 1900, Iowa State Normal
Sime, George Franklin — Northwood
Slavata, Clara Josephine — Iowa City
Spinney, Blanche Gardner — Des Moines
Steck, Daniel Fredric — Ottumwa
Stewart, Grace — Keota
Strange, Joanna Gleed — Sioux City
Swoyer, Loemma E. — Iowa City
Taylor, Lewis William — Sioux City
Walker, Henry Grass — Fontanelle
Wells, John Dennison — Glidden
West, Myrta Gertrude — Irwin
Wharton, Ralph Waldo Emerson — Franklin
Wood, Adelia Marilla — Iowa City
Wood, Mildred Grace — Iowa City
Yoder, Ray Wheeler — Amish
Yule, Anna May — Tipton

STUDENTS IN PROFESSIONAL COLLEGES REGISTERED FOR STUDIES IN THE COLLEGE OF LIBERAL ARTS

Bawden, George Stephen — Davenport
Bernatz, Clarence Frank — West Union
Bowman, Howard Edgar — Iowa City
Brackney, Herman John — Washta
Briggs, Stewart Daniel — Los Gatos, Cal.
B. A., 1892; M. A., 1893, Leland Stanford Junior University
Brinck, Dana Everett — Mt. Vernon
Brown, Edwin Keech — Solon
Burgeson, Henry Adolph — Kensett
Byers, Frank Crockett — Alden
Christiansen, Jens — Waterloo
M. Di., 1901, Iowa State Normal
Coakley, Charles Arthur Eugene — Flanders, S. D.
Cross, John Eli — Ira
Danell, Carl August — Rock Island
B. A., 1900, Augustana College
Diamond, Tobias Ellsworth — Orange City
Dickson, Charles Frank — Manning

Dunn, Edward Gregory	Swaledale
Echternacht, Arthur Charles	Mechanicsville
Emmons, Orrin William	Iowa City
Fox, Walter Henry	West Union
Gillespie, John Leonard	Nevada
B. Sc. of E. E. 1899, Iowa State College	
Goff, Harry LeRoy	DeWitt
Gorman, George Curran	Anamosa
Graves, Rex Vale	Hillsboro
Hadley, Herbert Erwin	Badger
Hawkinson, Oscar	Millersburg, Ill.
Hayden, Ulysses Grant	Wapello
M. Di., 1901, Iowa State Normal	
Irvine, Albert Elmer	Oelwein
Jones, Edward William	Correctionville
Kirby, James Francis, B. Ph.. 1902	Marengo
Langworthy, George	Massena
Lewis, Warren Herbert	Lohrville
Lynch, John Daniel	Sioux City
McCord, Ray Afton E.	Defiance
McCoy, Edward Hugh	Dumont
McDermot, Peter John	Iowa City
McLaughlin, Joseph Edmund	Wapello
McNett, Walter	Ottumwa
Mowry, Ross Rutledge	Baxter
Naftzger, Jesse Blaine	West Liberty
Noel, Charles Elbert	Iowa City
Osborn, Wayne McVay	Rippey
Pasley, Crockett Hector	Nevada
Pease, Herbert	Collins
Ramsell, Richard Roemer	Ottumwa
Rathbone, Don Quincy	Red Oak
Rosenbladt, Fritz	Bayard
Rowe, Frank Noyes	Iowa City
Sampson, Harry Ellis	Audubon
Shahan, Richard Franklin	Avery
Shannahan, Edwin Joseph	Iowa City
Siverling, George Earl	Montezuma
Smeltzer, Cora Hulda	Washington
Steele, Earl Newel	Perry

Turner, Edward Marsh	Iowa City
VanderPloeg, William Garfield	Otley
Vaughan, Claude Luverne	Coon Rapids
Voogd, Dick	Aplington
Warner, Orlyn Dorphon	Iowa City
Watland, Clarence	New Sharon
Willett, James Horace, B. A., 1901	Tama
Williamson, Ralph Clinton, B. Ph., 1902	Iowa City
Woods, Arthur Daniel	Greenfield
Wray, Frederick E.	Curtis

SUMMER SESSION, 1902

THE COLLEGE OF LIBERAL ARTS.

Aurner, Clarence Ray — Iowa City
M. Di., 1891, Iowa State Normal
Aurner, Mrs. Nellie Slayton — Iowa City
Baldwin, Clare C. — New Sharon
Ballard, George Henry — Charles City
M. Di., 1900, Iowa State Normal
Ballou, John Kendrick — Iowa City
Barrett, Jacob Edward — Dunlap
B. Di., 1900, Iowa State Normal
Blackmar, Harry E. — Emmetsburg
M. Di., 1894, Iowa State Normal
Blackmar, Mrs. Mary K. — Emmetsburg
M. Di., 1894, Iowa State Normal
Blackmore, Harriet Narcissa — Aplington
Blum, Daisy Pearl — Rossville
Bowman, Eliza — Lyons
Bozarth, Maud — Cedar Falls
Brinck, Dana Everett — Mt. Vernon
Bruce, Clarence Wallace — Anita
Burnside, Charles — Audubon
Call, Roy Guyon — Iowa City
Carlson, Ernest Emil — Battle Creek
Chamberlin, Louise — Colorado Springs, Colo.
Clegg, Earl G. — Ainsworth
Clegg, Samuel Harvey — Ainsworth
Coast, William Oscar — Iowa City
Cogswell, John Wilkinson — Cedar Rapids
Cole, Franklin James — Mason City
Corlett, Robert Kinley — Iowa City
Dansdill, Theresa Winifred — Millersburg
Downey, Ezekiel Henry — Memphis, Mo.
B. S., 1898, So. Iowa Normal
Eaker, Jay Felts — Pella

Ebersole, Edwin Christian — Iowa City
Eddy, Mary Louise — Marengo
Edmondson, Charles Howard — Iowa City
Elliott, Leroy Patton — Iowa City
Estes, Joel Sydney — Thurman
B. A., 1894, Lincoln Normal College
Foster, Charles Clarence — Iowa City
Gepson, Edward D. — Dunlap
B. Di., 1899, Iowa State Normal
Goff, Charlotta — Des Moines
Greene, Galen Edwin — Greene
Groves, Ada Dell — Des Moines
B. Di., 1897, Iowa State Normal
Haight, Mary Blanche — Winfield
Hanson, Clarence Henry — Fort Dodge
Hayden, Ulysses Grant — Wapello
M. Di., 1901, Iowa State Normal
Heard, Mary Kathrina — North East, Pa.
Ph. C. 1892, The University of Michigan
Heminger, Amos Lincoln — Keosauqua
Hess, Adam Konigmacher — Council Bluffs
Huggett, J. Percival — Cedar Rapids
M. Di., 1892, Iowa State Normal
Hussey, Lena Alice — Independence
B. Di., 1893, Iowa State Normal
Hutchinson, Everett Ross — Allerton
Jameyson, Charles Oscar — Reinbeck
B. Di., 1898, Iowa State Normal
Johnson, Henry Charles — Greene
Kampmeier, August — Iowa City
Kleinsorge, Rudolph Ernst — LeMars
Lambert, Emma Frances — Cedar Falls
M. Di., 1897, Iowa State Normal
Landers, Lou Cornelia — Webster City
Lane, Maud Edna — West Liberty
Logan, Alida Frances — Chicago, Ill.
Longstreth, Oscar Dolsen — Muscatine
M. Di., 1898, Iowa State Normal
Lynn, Margaret May — Iowa City
McClain, Henry Griffiths — Iowa City

McKirahan, Henry Herschel	Cincinnati, O.
McLaughlin, Eleanor	Mason City
MacKellar, Jennie Edith	Washburn
Martin, Katheryn	Iowa City
Mason, Laura	Delavan, Ill.
Matthews, Lillian Ruth	Sioux City
May, Samuel Thomas	Hawarden
Merritt, Edith Whitney	Iowa City
Meyerholz, Charles	Wapello
Miller, Grace E.	Muscatine
Moffett, Lambert Benton	Oelwein
M. Di., 1891, Iowa State Normal	
Moore, George William	McPaul
Montgomery, Mabel	Greene
B. Di., 1899, Iowa State Normal	
Morris, Daisie May	Charles City
Mouso, Frank William	Nashua
Mulock, Edwin Hulbert	Colfax
Murray, Mary	Maquoketa
Neander, Victor Theophilus	Cambridge, Minn.
Nugent, Francis	Iowa City
Nugent, Mary Josephine	West Bend
Quaife, Milo Milton	Nashua
Quigley, Edward Gross	Fairfield
B. Di., 1900, Iowa State Normal	
Quigley, Samuel	Brighton
Rall, Carolyn Louisa	Cedar Falls
Rate, Laura Frances	Iowa City
Redfield, Roy Addis	Ruthven
Reed, Ivy Leslie	Hepburn
Reherd, Mary Louise	Geneseo, Ill.
Rink, Clarence William	Shelby
Rosenstone, Bertram W.	Iowa City
Rourke, Mary	Farley
Schenck, Charles Plume	Burlington
Schichtl, Caroline Magdalene	Algona
Seykora, Frank	So. Omaha, Neb.
Shannahan, Edwin Joseph	Iowa City
Skelley, Silas Emmett	DeWitt
Skinner, John Martin	LeMars
Spangler, Harrison Earl	Adair

Stein, Sarah Elizabeth von — Iowa City
Thomas, Samuel L. — Council Bluffs
B. Di., 1891; M. Di., 1892, Iowa State Normal
Thompson, Elizabeth — Armstrong
Thompson, John Wesley — Wapello
Trainer, Fred Eggert — Ackley
Voelker, Paul Frederick — Ackley
Watson, Emery Earnest — Stockport
M. Di., 1901, Iowa State Normal
Welch, David Sewall — Glenwood
Whedon, Alma Theodora — Iowa City
Whedon, Arthur DeWett — Iowa City
White, Warren Henry — Iowa City
Willis, Harry Douglas — Iowa City
Willits, Ira Raymond — Keithsburg, Ill

THE GRADUATE COLLEGE

Bowman, John Gabbert — Lyons
B. A., 1899
Buffum, Hugh Straight — LeRoy
B. A., 1901; M. A., 1902
Cavanagh, Lucy Mary — Iowa City
B. S., 1896
Davis, Florence Mabel — Sioux City
B. Ph., 1902
Dornon, Alexander McLeod Milligan — Osceola
——, 1882, Geneva College;
Dunham, Martha Aurilla — Mason City
B. Ph., 1898
Eddy, Helen May — Marengo
B. A., 1900
Ede, Ernest D. — Earlville
B. Ph., 1902
Ford, Percy Lindsay — Legrand
B. A., 1897, Palmer College
Fracker, George Cutler — Cedar Rapids
B. Ph., 1894; M. A., 1900
Geyer, Ellen — Cedar Rapids
B. Ph., 1902
Hastings, Jessie Pearle — Iowa City
B. Ph., 1898

Hinman, Annie Evelyn — Grand Forks, N. D.
B. S., 1891

Horner, Robert Messenger — Waitsburg, Wash.
B. A., 1880, Monmouth College; LL. B., 1881

Hornsyld, Peder Pedersen — Des Moines
——, 1890, University of Copenhagen

Howard, Libbie C. — Jefferson
B. Ph., 1899

Hughes, Louise Elizabeth — Iowa City
B. Ph., 1878; M. A., 1881; B. A., 1899

Hunt, Percival — Cedar Falls
B. Di., 1896; M. Di., 1897, Iowa State Normal; B. A., 1900

Hutchison, Ada Flynn — Iowa City
B. Ph., 1891

Kapp, Walter Edward — Dubuque

Kawakami, Kiyoshi — Tokio, Japan
LL. B., 1899, Tokio Law College; M. A., 1902

Kirby, James Francis — Williamsburg
B. Ph., 1902

Krause, Charles Schutz — Garwin
B. S., 1902

Lathrop, Frances Emma — Waukon
B. Ph., 1895, Des Moines College

Louis, John J. — Harlan
B. Ph., 1899

Moler, Margaret Imo — Iowa City
B. Ph., 1902

Mueller, Mary Theresa — Iowa City
B. Ph., 1902

Myers, Joel Yates — Legrand
B. A., 1878; M. A., 1897, Union Christian College

Nisley, Frank Newton — Cedar Rapids
B. Ph., 1901, Coe College

Paine, Katherine — Iowa City
B. Ph., 1889

Paxson, Susan — Manchester
B. Ph., 1891

Rice, Jennie Gillis — Council Bluffs
B. Ph., 1891

Rich, David W. — Wayland
B. A., 1902

Rogers, Frances Louise B. A., 1893	Iowa City
Sherwood, Mrs. Elizabeth Lewis B. A., 1881	Iowa City
Shuck, May, B. Ph., 1900	Iowa City
Sunier, Fanny Annette B. Ph., 1902	Iowa City
Troth, Mira B. A., 1883	Iowa City
Webber, Charles Albert B. A., 1900	Iowa City
Williams, Bertha Alice B. Ph., 1888	Iowa City
Williams, Josephine Viola B. Ph., 1876	Iowa City
Williams, Mabel Clare B. Ph., 1899	Coralville
Witmer, John Earl B. Ph., 1894	What Cheer

THE LIBRARY TRAINING SCHOOL

Adams, Mrs. Minnie Barber	Vinton
Anders, Mrs. Florence	Iowa Falls
Baker, Mary Ellen B. A., 1900, Lincoln University	Decatur, Ill.
Brown, Margaret Wright	Chariton
Bruen, Mary	Burlington
Buettner, Meta Elizabeth	Burlington
Campbell, Gertrude Lyle	Fort Dodge
Carey, Miriam Eliza	Burlington
Cotton, Mrs. Gertrude Jacobs M. D., Northwestern University	Champaign, Ill.
Daniels, Adeliza	Marion
Eason, Fannie Mabel	Marshalltown
Forward, Mary Cornelia	Rockton, Ill.
Fulton, Nannie Pearse	Keokuk
Gatch, Ruth Gordon	Des Moines
Gunsolus, Helen Emily	Tipton
Jones, Frances	Hebron, Ill.

Kapp, Walter Edward	Dubuque
McRaith, Helen Marie	Iowa City
Moffatt, Bessie Ingersol	Boone
Mullany, Grace Catherine	Dubuque
Namur, Cecelia Barbara	Iowa City
Noble, Edna Centennial B. L., 1900, Nebraska Wesleyan	University Place, Nebr.
Oliver, Joanna Blessing B. A., 1899, Wellesley	Onawa
Paarman, Juergen Herman, B. S.; M. S., 1902	Davenport
Parkhurst, Mary Louisa	Marion
Perry, Mrs. Jessie Booth	Chicago, Ill
Pickrell, Priscilla	Des Moines
Robbins, Ethel Alice	Cedar Rapids
Sawyer, Mrs. Nellie Stephens	Muscatine
Smith, Edith Jane B. L., 1893, Lake Forest	Fulton
Smith, Jennie Pearl	Hawarden
Stagg, Lila Eleanor	Grinnell
Stocker, Ellen Gilman	Muscatine
Strange, Joanna Gleed	Sioux City
Swiney, Elizabeth Van Patten	Davenport
Switzer, Grace Ellen Elizabeth B. Ph., 1902	Iowa City
Waterbury, Flora Avis	Iowa City
Wheelock, Mary Edna	Grinnell
Yates, Mrs. Anna Shaw	Tipton

THE GRADUATE COLLEGE

DEGREES CONFERRED JUNE, 1902

MASTER OF ARTS

Baughman, Ruby B. A., 1900.
Briggs, Fletcher, B. Ph., 1901.
Brown, Samuel Joe, B. A., 1898, LL. B., 1901.
Buffum, Hugh Straight, B. A., 1901.
Hruska, Victoria, B. A., 1901.
Kawakami, Kiyoshi, LL. B., 1899, University of Tokio.
Wise, George Chester, B. Ph., 1900.

MASTER OF SCIENCE

Albert, Henry, B. S., 1900, M. D., 1902.
Beck, William Edmund, B. S., 1900.
Dean, Ray Herbert, B. S., 1899, M. D., 1902.
Harkness, Gordon Follette, B. S., 1900, M. D., 1902.
Johnston, Oscar Percy, B. Ph., 1897, Iowa College.
Kemmerer, Theodore Wilbert, B. S., 1900, M. D., 1901.
Paarmann, Juergen Herman, B. S., 1902.
Shimek, Bohumil, C. E., 1883.
Stromsten, Frank Albert, B. S., 1900.
Weld, LeRoy Dougherty, B. S., 1899.
Werts, Charles Martel, B. S., 1900.

MATRICULATES FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Boehm, Walter Martinus, B. S., 1902 — Ft. Dodge
Physics, Chemistry

Briggs, Fletcher, B. Ph., 1901; M. A., 1902, Nevada
German, Norse and English

Brown, Edward John Frederick — Ida Grove
B. A., 1897, Bartholdy College; M. A., 1898, The State University of Nebraska
Spanish, French.

Buffum, Hugh Straight, — LeRoy
B. A., 1901; M. A., 1902

Education

Cady, George Luther — Iowa City
B. A., 1890, Olivet; B. D., 1894, Chicago Theological Seminary
Sociology, Philosophy

Conner, Jacob Elon, B. A., 1891, — Mt. Pleasant
International Law, Economics, Political Science

Dorcas, Herbert Clifford, B. Ph., 1895, — New York
History of Education, Psychology

Ferson, Merton Leroy, — Iowa City
B. Ph., 1900; LL. B., 1901
Jurisprudence, Iowa History

Fitzpatrick, Thomas Jefferson — Iowa City
B. S., 1893, M. S., 1900
Botany, Geology

Fracker, George Cutler — Cedar Rapids
B. Ph., 1894, B. Di., 1896, M. A., 1900
Psychology, Philosophy

Lambert, John Joseph — Iowa City
B. Di., 1896; M. Di., 1897, Iowa State Normal; B. Ph., 1899; M. S., 1901
Morphology, Geology

Spurgeon, Floris J., B.S., 1900; M. A., 1901, Iowa City
Political Science, Economics

Stromsten, Frank Albert — Corydon
B. S., 1900; M. S., 1902
Morphology, Botany

Weld, LeRoy Dougherty — Cedar Rapids
B. S., 1899; M. S., 1902
Physics, Mathematics

Williams, Mabel Clare, B. Ph., 1899, — Coralville
Psychology, Morphology

MATRICULATES FOR THE DEGREE OF MASTER OF ARTS

Bowman, John Gabbert, B. A., 1899, — Lyons
Rhetoric, English Literature

Briggs, George Nathaniel, B. A., 1897 — Lamoni
Education, Politics

Brown, Florence Emily, B.Ph., 1892, — Marengo
Psychology, Morphology

Case, Lucy Roberts — Minneapolis, Minn
B. L., 1899, The University of Minnesota
English Literature

Chamberlin, Park, B. Ph., 1899, — Anamosa
American History, Municipal Government

Chawner, Mary Grove — Indianapolis, Ind.
B. A., 1896, Penn College
English Literature, English Language

Collins, Edward Robert, B. S., 1902 — Bloomfield
Education, Philosophy

Cook. Roy Arthur, B. A., 1901 — Independence
Political Science, Public Speaking

Curtis, Alice Bertha, B. Ph., 1903, (In course) — Allison
English Literature, Sociology

Daum, Selma A., B. Ph., 1900; B. Di., 1902, — West Liberty
Sociology, Psychology

Davis, Arthur William — Fonda
B. S., 1893, Upper Iowa University
Economics, Political Science

Davis, Florence Mabel, B. Ph., 1902 — Emmetsburg
English Literature, English Language

Dick, George Stuart — Charles City
B. Di., 1887, Iowa State Normal;
B. S., 1888; B. Ph., 1897, Cornell College
Psychology, Education

Dougherty, Raymond Philip — Lebanon, Pa.
B. A., 1897, Lebanon Valley College
Greek, Philosophy .

Dykstra, Sylvester Henry, B. A., 1902 — Rochester, N. Y.
History

Eaker, Jay Felts, B. A., 1903, (In course) — Pella
English Literature, English Language

Eddy, Helen May, B. A., 1900 — Marengo
Latin, German

Egan, George William — Missouri Valley
B. A., 1900; LL. B., 1901,
Political Science, Sociology

Farrell, Thomas, B. A., 1902, — Fonda
Public Speaking, Education

Filer, Paul Schenck, B. A., 1902 — Parkersburg
English, French

Foster, Blauche Fairfax — Iowa City
B. Di., 1898, Indiana State Normal; B. Ph., 1903 (In course)
English Literature, History

Garver, Frank Harmon — Sioux City
B. A., 1898, Upper Iowa University
American History, Political Science

Gaston, Myron Clinton — Tabor
B. A., 1901, Tabor College
Greek, Latin

Giese, Charles Oscar, B. Ph., 1902 — Pleasant Grove
Morphology, Geology

Heath, Maggie May, B. Ph., 1900 — Iowa City
Latin, German

Holt, Harriette Grace, B. Ph., 1896 — Iowa City
French, English

Huggett, J. Percival — Iowa City
M. Di., 1892,, Iowa State Normal; B. Ph., 1903, (In course)
Education, Political Economy

Humphrey, Benton Wade — Walford
B. Ph., 1899, Cornell College
Political Science, Economics

Hunt, Percival — Cedar Falls
B. Di., 1896; M. Di., 1897, Iowa State Normal; B. A., 1900
English Language, English Literature

Kampmeier, August, B. A., 1903, (In Course) Iowa City
Greek, Modern Language

Kelley, Rita Amanda, B. Ph., 1901 — Iowa City
English Language, English Literature

Kent, Grace Helen, B. A., 1902 — Victor
Psychology, Education

Kingsbury, Maude Cleaveland, B. Ph., 1902, Iowa City
Psychology, Logic

Lorenz, Charlotte Marie, B. A., 1902 — Iowa City
German, Gothic and Old English

Louis, John Jay, B. Ph., 1899 — Harlan
Sociology, Political Science

McGee, Alice Florence, B. Ph., 1901 — Iowa City
French, History

Maita, Minoru — Iowa City
1896, National English College, Japan; 1901, The University of Oregon
Political Science, Sociology

Maudlin, Mina May, B. A., 1902 — Ladora
Latin, Greek

Mehaffy, John Milton, B. Ph., 1902 — Morning Sun
Sociology, Morphology

Meyerholz, Charles, B. Ph., 1903, (In course) — Wapello
History, Political Science

Monnet, Julien Charles — Cando, N. D.
B. Ph., 1892; LL. B., 1893
Political Science, Economics, Psychology

Nisley, Frank Newton — Cedar Rapids
B. Ph., 1901, Coe College
Education, Philosophy

Paine, Katherine, B. Ph., 1899 — Iowa City
English Literature, English Language

Paxon, Susan, B. Ph., 1891 — Manchester
Education, Latin

Polk, Mary Emma, B. A., 1900 — Winterset
English Literature, English Language

Quigley, Sarah Ruth, B. Ph., 1902 — Iowa City
English Literature, English Language

Randall, Frank Hall, B. A., 1902 — Denison
History, Economics

Reever, William Henry — Laurens
M. Di., 1895, Iowa State Normal; B. Ph., 1897
History, Political Economy

Rich, David W., B. A., 1902 — Wayland
Greek, Public Speaking

Robinson, Alta Aileen, B. Ph., 1900 — Iowa City
English, Psychology

Saam, Theodore J. — Lansing
B. S., 1898, Lenox College
History, Political Science

Schaub, Lincoln Frederick — Charles City
B. A., 1901; Charles City College
Psychology, Sociology

Sherwood, Mrs. Elizabeth Lewis, B. A., 1881, — Iowa City
English Literature, English Language

Simonton, Thomas Milton — Oskaloosa
B. Ph., 1900; LL. B. 1901
Sociology, Education

Smith, Mabel Clare, B. A., 1902 — Harlan
Greek, Latin

Stuart, Clara, B. Ph., 1902; West Branch
Political Science, Iowa History and Politics.
Sunier, Fanny Annette, B. Ph., 1902; Iowa City
French, English.
Switzer, Grace Ellen Elizabeth, B. Ph., 1902; Iowa City
Psychology, History of Philosophy.
Underwood, Joseph Harding, Bristow
B. A., 1902, Western College.
Political Economy, Sociology.
Walrod, Claude Delestine, B. A., 1895; Onslow
Economics, Political Science.

MATRICULATES FOR THE DEGREE OF MASTER OF SCIENCE

Albert, Fred, Jr,, B. S., 1903 (In Course); Reinbeck
Pathology, Morphology.
Ankeny, Alice Ankona, Florida
B. A., 1897, Wells College.
Chemistry, Chemical Analysis.
Bailey, Frederick William, B. S., 1902; Iowa City
Physiology, Morphology.
Bell, William Bonar, Milton
M. Di., 1899, Iowa State Normal; B. A., 1902.
Zoology, Morphology.
Blythe, Edward Ellsworth, B. Ph., 1900; Williamsburg
Histology, Embryology.
Branson, Laura House, M. D., 1885; B. S., 1901; Iowa City
Pathology, Philosophy.
Brink, Francis Newton, B. Ph., 1899; Iowa City
Quantitative Analysis, Qualitative Analysis.
Burk, Frank Oscar Davenport
B. A., 1901, Augustana College;
Pathology and Bacteriology, Physiology.
Burton, Harry Edward, B. A., 1901; Onawa
Mathematics, Astronomy.
Byrnes, Ralph Leonidas, B. S., 1902; Iowa City
Pathology and Bacteriology, Botany.
Cavanagh, Lucy Mary, B. S., 1896; Iowa City
Botany, Zoology.

Clark, Whit H., B, S., 1897; Sioux City
Mathematics, Education.

Clearman, Hattie Marie, B. Ph., 1900; Iowa City
Botany, Geology.

Ellyson, Charles Wright, B. S., 1901; West Liberty
Psychology, Pathology.

Foulk, Frank Erastus, Waterloo
B. S., 1901, Des Moines College.
Physiological Chemistry, Pharmacology.

Gow, James Ellis, B. Ph., 1901; Greenfield
Botany, Zoology.

Hamilton, Arthur Stephen, Independence
B. S., 1894, Lenox College; M. D., 1897, The University of Pennsylvania.
Psychology; Zoology.

Lambert, Charles Irwin, Cedar Falls
M. Di., 1897, Iowa State Normal; B. S., 1901.
Pathology and Bacteriology, Morphology.

Lees, James Henry, Iowa City
B. Di., 1893; M. Di., 1897, Iowa State Normal; B. A., 1901, Coe College;
Geology, Morphology.

Mueller, Herman August, B. Ph., 1899; Winterset
Geology, Botany.

Myers, Perry Cullen, B. S., 1899; Winona, Minn.
Geology.

Seaver, Fred Jay, Mansing
1902, Morning Side College.
Botany, Zoology.

Speidel, Homer Vincent, B. S., 1902; Iowa City
Petrology, Geology.

Vandivert, Arthur Hubert, Iowa City
Ph. C., 1879, The State University of Michigan.
Physiological Chemistry, Bacteriology.

Walsh, John Graney, B. S., 1903 (In Course) Perry
Pathology, Neurology.

MATRICULATES NOT CANDIDATES FOR DEGREES

Beck, William Edmund, B. S., 1900; M. S., 1902; Sioux City
Mathematics, Astronomy.

Biggs, Mrs. Eleanor Startsman; Iowa City
B. Ph., 1887; M. A., 1890.
French, Public Speaking.

Burge, Mrs. Adelaide Lasheck, B. Ph., 1900. Iowa City
Geology, English, Zoology, History.

Danell, Karl August, Rock Island, Ill.
B. A., 1900, Augustana College.
Histology and Embryology.

Eastman, Clarence Willis, Iowa City
B. S., 1894, Worchester Polytechnic; M. A., Ph. D., 1898, Leipzig.
Sanskrit.

Gaymon, Leah May, B. Ph., 1892; M. A., 1895; Iowa City
Zoology.

Gonwick, Clara, B. A., 1898; Northwood
Latin, English.

Graff, Lulu A., B. S., 1899; Iowa City
German.

Hollenbeck, Henry Stanley, B. A., 1902; Sheldon
Sociology, Morphology.

Hollister, Laura Isabel, Cleveland, Ohio
B. S., 1892; Ada University (Ohio).
English.

Hughes, Louise Elizabeth, Iowa City
B. Ph., 1878; M. A., 1881; B. A., 1899.
Latin.

Hutchinson, Sarah Delia, Iowa City
B. Ph., 1883; M. A., 1888.
Spanish.

Johnson, William Oscar, Willis, Kan.
B. A., 1898, Leland Stanford Junior University.
Economics.

Lochridge, Harvey Hayes, Iowa City
B. S., 1901, Beloit College.
Electro-Chemistry.

Lorenz, Charles Frederick, Iowa City
B. S., 1897; M. S., 1898.
Mathematics.

Meek, Kate Mitchell, Hicksville, Ohio
B. A., 1896; The State University of Indiana;
Drawing, Pedagogy, German, History, English.

Mitchell, Thomas Warner, Prairie, Wash.
B. A., 1900, The University of Washington.
Economics.

Mordoff, Carrie Ella, B. Ph., 1884; M. A., 1887; Iowa City
English.

Sieg, Lee Paul, B. S., 1900; M. S., 1901; Marshalltown
Physics, Mathematics.

Sloan, Sam Berkly, Logan
B. A., 1899, The University of Nebraska.
English.

Wilcox, Mrs. Mary DeVol, Iowa City
B. A., 1888, Smith College.
Sociology.

THE COLLEGE OF LAW

DEGREES CONFERRED JUNE, 1902

Johnson, Eugene Gustave,
B. A. 1898, Luther College.
Johnson, Perry Spencer,
B. A. 1899, Luther College.
Murray, George Herman.
Orvis, Elmer Victor.
Owen, Lenton Warren.
Petrovitsky, Charles George.
Scholz, Charles Emil.
Stevenson, John Ogilvie, Jr.
Thurston, Lloyd Leonard.

THIRD YEAR

Ahern, Timothy Joseph	Calmar.
Allbee, Gustavus, Jr.	Pleasant Prairie.
Artherholt, Luther Garfield	Shell Rock.
Arthur, Edwin Calhoun	Logan.
Baker, Mark Emery	Iowa City.
Ball, George Washington, Jr.	Iowa City.
B. Ph., 1901.	
Bannister, Robert James	Ottumwa.
B. Ph., 1901.	
Birss, George Alexander	Tipton.
Bock, William James	Lake Park.
Bordner, Richard L.	Jesup.
Calkins, Guy Smith	Iowa City.
Clegg, Samuel Harvey	Ainsworth.
Cox, Clifford Vernard	Newton.
B. Ph., 1901	
Crary, Archie West	Boone.
B. S. 1897, Cornell College.	
Crockett, Frank Walford	Iowa City.
Crum, William Edwin, Jr.	Bedford.
Delavan, George Edwin, Jr.	Estherville.
B. A., 1902.	
Drake, Fred Collins	Adel.
B. Ph., 1901.	
Engelke, Charles Rufus	Sidney.

Farquhar, S. Walter — Ida Grove.
Fitzpatrick, Miles Joseph — Fort Dodge.
Gillespie, John Leonard — Nevada.
B. Sc., of E. E., 1899, Iowa State College.
Grosenbaugh, Carrie — Dayton.
B. D., 1902; LL. B., 1902, Highland Park College.
Gurley, Zenas Robinson — Anamosa.
Hadley, Herbert Erwin — Badger.
Hanson, William Patrick — Williamsburg.
Harned, Luther Martin — Lone Tree.
Heald, Francis Alfred — Osage.
B. Ph., 1900, Cornell College.
Heminger, Amos Lincoln — Keosauqua.
Howell, George Key — Davis City.
Hull, Elmer Clapp — Iowa City.
Hunter, Charles Randall — Exira.
Hunter, John McCrary Griggs — Exira.
Huttenlocher, Forest — Des Moines.
Jackson, Thomas Sunter — Sheffield.
B. S., 1900, Upper Iowa University.
Jones, Peter Henry — Manning.
Kelso, Charles David — Corydon.
Kenyon, Earl Dudley — Onawa.
Kuck, Orlando Adolph — Charles City.
B. Ph., 1901.
McClain, Donald — Iowa City.
B. A., 1901.
McConnell, Arthur Harris — Iowa City.
McCulla, Walter Philo — Sutherland.
B. Ph., 1901.
McElroy, Isaac Erwin — Pleasant Prairie.
McKenzie, John Augustus — Living Springs.
B. A., 1901.
Mack, Guy Edgar — Storm Lake.
Maguire, Daniel Eugene — East Dubuque, Ill.
Mather, Carl Henry — Springdale.
B. S., 1900, Penn College.
Medin, John Theodore — Kensett.
Miles, Matthew James — Cedar Rapids.
B. A., 1896, St. Mary's (Kas.)
M. A., 1898, Georgetown University (Washington, D. C.)

Morrison, Samuel Turner	Iowa City.
Mowry, Ross Rutledge	Baxter.
Negus, Henry	Iowa City.
Oakes, William Thomas	Clinton.
Ping, John Roy	Sperry.
Pomeroy, William Henry	Shelby.
Risk, Loren	Stanley.
Sherman, Fred	Rolfe.
Smith, Thomas Corwin	Logan.
Sullivan, Eugene John	Marengo.
Swift, John Loras	Riverside.
Thompson, Herbert Garfield	Muscatine.
Thompson, Ralph Ulysses	Muscatine.
Tourgee, John Birney	Arthur.
Vander Ploeg, William Garfield	Otley.
Van Ness, Edwin Jones	Williams.
Voogd, Dick	Aplington.
Walker, James Henry	Denison.
Waterman, William Thomas	Davenport.
B. Ph., 1900, Iowa College.	
Wenner, Edward Jackson	Garrison.
Wilcox, William Henry	Rolfe.
Wilson, Carlton Charles	Washington.
Wood, Clarence Daniel	Iowa City.
Yates, Edward Gilbert	Williamsburg.

SECOND YEAR

Brackett, Merritt	Iowa City.
B. A., 1902.	
Brinck, Dana Everett	Mt. Vernon.
Brown, Arthur Adney	Storm Lake.
Brown, Edwin Keech	Solon.
Burnett, George Ritter	Iowa City.
1880, West Point.	
Burris, James Harvey	Winterset.
B. A., 1901.	
Byers, Frank Crockett	Alden.
Claussen, George	Clinton.
Cole, Franklin James	Mason City.
Cook, Roy Arthur	Independence.
B. A., 1901.	

Cross, John Eli	Ira.
Diamond, Tobias Ellsworth	Orange City.
Dunham, Ralph Abner	Manchester.
Emmons, Orrin William	Iowa City.
Estes, Joel Sidney	Thurman

B. A., 1894, Lincoln Normal College.

Fitzpatrick, Daniel Helen	Fort Dodge.
Genung, Norman Seth	Glenwood.
Gray, Ross Calhoun	Rockwell City.
Haddock, Ross Boyd	Bedford.
Herrick, William Karl	Cherokee.

B. L., 1900, The University of Wisconsin.

Humphrey, Benton Wade	Walford.

B. Ph., 1899, Cornell College.

Irvine, Albert Elmer	Oelwein.
Johnson, Daniel Graham	Curlew.
Kahler, Waldo Emerson	Traer.
Kenderdine, Glenn Albert	Lisbon.
Kimball, Frank Burton	Iowa City.
Kirby, James Francis	Marengo.

B. Ph., 1902.

Klise, Harrold Edward	Baxter.
Koser, George Doner	Iowa City.
Kuhlemeier, Harry Floyd	Burlington.
Lane, Dick Richardson	Davenport.
Law, William Robert	Waterloo.
Linville, Guy Pittman	Carson.
Longueville, Oliver	Dubuque.
McCord, Ray Afton E.	Defiance.
McCoy, Edward Hugh	Dumont.
Martin, Frederick Alonzo	Muscatine.
Meighen, James Leroy	Newell.
Mercer, Herbert Miller	Burlington.
Nicholson, Harry Carl	Lamoni.
Norton, James Lee	Des Moines.

B. A., 1900, Des Moines College.

Ochiltree. Henry Clyde	Morning Sun.
Ratcliffe, William Connor	Rolfe.
Ridgeway, William Bailey	Winfield.
Schiefelbein, Emil August	Hudson.

B. S., 1896, Upper Iowa University.

Shannahan, Edwin Joseph	Iowa City.
Skinner, Bert Sydney	Moline, Ill.
Spurgeon, Theodore	Iowa City.
Storey, Leslie	Iowa City.
B. Ph., 1902.	
Stuart, Charles Edward	Chadwick, Ill.
Vaughn, John Thomas	Fort Dodge.
White, Welmer Welrose	Panora.
Wieben, Edward Emil	Dysart.
Will, Charles Louis	Vinton.
Willett, James Horace	Tama.
B. A., 1901.	
Willging, Edgar Henry	Dubuque.
Williamson, Ralph Clinton	Iowa City.
B. Ph., 1902.	

FIRST YEAR

Alford, Lore	Waterloo.
Allen, Frank J.	Scranton.
Badgerow, Harvey Gordon	Sioux City.
Badgerow, Ralph John	Sioux City.
Baughn, Wilmot Lawson	Harlan.
Beatty, Floyd Seydel	Iowa City.
Benshoof, Chester William	Stockton.
Bergman, Roy Earnest	Newton.
Burgeson, Henry Adolph	Kensett.
Coakley, Charles Arthur Eugene	Flanders, S. D.
Cox, Guy	Missouri Valley.
Curtis, John Delmond	Russell.
Davis, Charles George	Geneseo, Ill.
Dickson, Charles Frank	Manning.
Dougherty, Ira Elmer	Lake City.
Dunn, Delbert	Cherokee.
Dunn, Edward Gregory	Swaledale.
Dykstra, Sylvester Henry	Rochester, N. Y.
B. A., 1902.	
Fortner, Frank Ellis	Waverly.
Freeman, Earnest Franklin	Emmetsburg.
Garretson, Gail Garfield	Atlantic.
Gorman, George Curran	Anamosa

Greene, Galen Edwin	Greene.
Hampson, John Albert	Osage.
Hayden, Ulysses Grant	Wapello.
M. Di., 1901, Iowa State Normal	
Hess, Adam Konigmacher	Council Bluffs.
Hunt, Ralph Blaine	Denison
Jeffers, Clyde Garfield	Hampton.
Johnson, James Orin Elmer	Northwood
Johnson, Lewis Gerhard	Roland.
B. A., 1902, Luther College	
Johnston, Albert Cleland	Ida Grove.
Jones, Nyle William	Iowa Falls.
Kendrick, William Randolph Curry	Centerville.
Knox, Clem	Keosauqua.
Larkin, Leo Ambrose	Rock Island, Ill.
Lewis, Warren Herbert	Lohrville.
Lynch, John Daniel	Sioux City.
McLaughlin, Joseph Edmund	Wapello
McNett, Walter	Ottumwa.
Maenell, Claude Frederick	Correctionville.
Main, Fred William	Iowa City.
Meyers, John Henry	Waterloo.
Miller, Albert Elias	Denison.
Minnick, Benjamin Frank	Union, Oregon.
Moffitt, Horace Barclay	Newton.
Mosher, Orris, Jr.	Walnut.
Muller, Charles Engelbert B.	Coon Rapids.
Mulock, Edwin Hulbert	Colfax.
Noel, Charles Elbert	Iowa City.
O'Brien, Richard Joseph	Independence.
Oelkers, Leroy Carl	Davenport.
Osborne, Wayne McVeigh	Rippey.
Pasley, Crockett Hector	Nevada.
Ramsell, Richard Roemer.	Ottumwa.
Rich, David W.	Wayland.
B. A., 1902.	
Roche, Thomas Francis	Clarence.
B. A., 1892, Cornell College	
Ryan, John Joseph	Muscatine.
Sampson, Harry Ellis	Audubon.

Smith, John Seymour	New Glasgow, Prince Edward Island.
Spangler, Harrison Earl	Adair.
Spencer, Frank, Jr.	Neola.
Stanfield, Sidney Evert	Lake City.
Steele, Earl Newell	Perry.
Sutherland, Charles Ross	Center Junction.
M. Di., 1899, Iowa State Normal	
Swigart, Willard Carlisle	Maquoketa.
Swindle, Anthony J.	Ryan.
Taylor, Thomas Blaine, Jr.	Hampton.
Tobin, Richard Griswold	Fort Dodge.
Walrod, Claude Delestine	Onslow.
B. A., 1895.	
Warner, Orlin Dorphon	Iowa City.
Whiting, Samuel Danforth	Iowa City.
B. A., 1896.	
Wray, Frederick E.	Curtis.

UNCLASSIFIED

Cotton, Richard Lee	Davenport.

STUDENTS IN THE COLLEGE OF LIBERAL ARTS TAKING LAW AS ELECTIVE WORK

Harris, Fred Elwon	Woodward.
Kelley, Edmund Levi, Jr.	Lamoni.
Kelley, Richard Carlyle	Lamoni.

COMBINED COURSE

Burmeister, August Otto	Adair.
Drewry, Ray Forest	Sac City.
Keck, Walter L.	Maquoketa.
Kemmerer, Charles Tilghman, Jr.	Eldridge.
Pratt, Harlow Munson	Iowa City.
Scallon, Hubert William	Ackley.
M. Di., 1901, Iowa State Normal	
Watson, Harry Chibnail	Emmetsburg.

THE COLLEGE OF MEDICINE

DEGREES CONFERRED APRIL, 1902.

Albert, Henry
Anderson, Harry Nathaniel
Baer, Thomas Horatio
Chase, William Bronk
Christensen, Christen Jensen
Clark, Alice May
Cooper, Jay Clark
Day, William Elton
Dean, Ray Herbert
Dingman, Marshal Edwin
Donohoe, Anthony Patrick
Eaton, William Hammond
Free, Samuel Pratt
Graham, Dell Ewing
Gray, John Franklin
Greear, Clabe Baker
Guldner, Ludwig Frederick
Harkness, Gordon Follette
Heinen, William Clark
Hibbs, Fred Valentine
Lundvick, Arthur Wesley
McAllister, Fred J.
Maresh, George
Meigs, Benjamin Lyle
Nervig, Isaac Eugene
Pheasant, Leon Ray
Fritschel, Godfrey Constantine
Reppert, Lyle
Scarborough, Bert Vergil
Schooley Alfred Heaton
Speers, Will Fred
Stanley, Clarence J.
Starbuck, Thomas Davidson
Steelsmith, Daniel Clarence
Tamisiea, James Hugh
Taylor, John Lealand
Tilden, William Clark
Wells, James Harlan
Werts, Charles Martel
Wiedow, Henry

DEGREE CONFERRED JUNE, 1902.

Henninger, Louis Jr.

FOURTH YEAR

Ainsworth, Adelaide Lorena	Ft. Dodge.
Angus, Haney Adelbert	Algona.

B. S. 1900.

Appel, Fred Lyons	Muscatine.
Bice, Gerald Roy	Troy Mills.
Braden, Austin Lynn	Mediapolis.
Burns, Thomas John	Manchester.
Bushnell, William Francis	Cedar Rapids.
Chamberlain, Ben H.	Wyoming.

Creswell, William L.	Reinbeck.
Cummings, William Cyrus	Hopkinton.
Downing, Leroy Morgan	Wellman.
Dulin, John Albert	Webster.
Fairall, Herbert Snowden, Jr.	WestSuperior, Wis

B. S., 1902.

Grothaus, Tarana Johanna	Buffalo Center.
Hetzel, Clarence Charles	Avoca.
Hoffman, Coleman Lovejoy	Orangeville, Ill.
Hooker, Ira Sidney	Waverly.
Huston, Samuel Wesley	Wyman.
Jones, Henry Durst	Battle Creek.
Jones, Walter William	Eddyville.
Lambert, Charles Irwin	Cedar Falls,

M. Di., 1897, Iowa State Normal;

B. S., 1901.

McCall, Harry Ernest	Berkley.
McClure, Ernest Covey	Oskaloosa.
Meyers, Jacob Franklin	Lisbon.
Moon, Roy	Bricker.
Murchison, Kenneth	Griswold.
Murphy, Thomas William	Lawler.
Porter, Roy Samuel	Moline, Ill.
Robinson, Reuben Artman	West Union.
Shaffer, Carl John	Centerville.

M. Di., 1897, Iowa State Normal.

Shiley, George Francis	Missouri Valley.
Washburn, Frank Augustus	Mt. Pleasant.

B. A., 1896, Battle Creek College, Mich.

Whitaker, Ellis John	Davenport.

B. A., 1896.

Whitmore, Clara B.	Fairfield.

B. A., 1900.

Young, James Myron	Center Junction.

THIRD YEAR.

Allen, Roy William	Marshalltown.
Baldwin, Clare C.	New Sharon.
Blythe, Edward Ellsworth	Williamsburg.
Boots, Frederick Warner	Linden.
Bowman, Howard Edgar	Iowa City.

Bowser, William F. Buffalo.

B. A., 1898, Parsons College.

Briggs, Francis William Oskaloosa.

B. S., 1899, Penn College.

Briggs, Stewart Daniel Los Gatos, Cal.

B. A., 1892, M. A. 1893, Leland Stanford, Jr., University

Brown, Florence Emily Marengo.

B. Ph., 1892.

Carle, Frank Clifford Urbana.

Coulthard, George Harry California.

Crane, Edward Harrison Battle Creek.

Crane, Eudell Thomas Battle Creek.

Danell, Karl August Rock Island, Ill.

B. A., 1900, Augustana College.

Day, Archie Loraine Mt. Pleasant.

Dunn, John Edward East Orange, N. J.

Edmonds, William Frank Dysart.

Fitz, Joseph Hamilton Panora.

Foulk, Frank Erastus Waterloo.

B. S., 1901, Des Moines College.

Gordon, William Null Traer.

Gray, George Henry West Union.

Gray, Oscar Sylvester West Union.

Hearst, George Edward Cedar Falls.

Houser, Cass Thomas Urbana.

Irwin, Perle Clifton Fairfield.

Jones, Harry Jacob Wellman.

Krause, Charles Schutz Garwin.

B. S., 1902.

Kulp, Ray Ranney Davenport,

Martindale, William Harvey Dayton.

Middleton, Edward Duncan Davenport.

Morgan, Mabel Ruth Bunker Hill, Ill.

Naftzger, Jesse Blaine West Liberty.

Ostling, Carl August Des Moines.

Pease, Herbert Collins.

Reinemund, Charles Adam Muscatine.

Robb, Robert Worth Linton.

Rosenbladt, Fritz Bayard.

Rowe, Frank Noyes Iowa City.

Safely, Agnes Isabel Tipton

B. S., 1899.

Sauerbry, Frank Carl	Strawberry Point.
Schroeder, Peter Herman	Traer.
Schug, George	Strawberry Point.
Sebern, Richard Clyde	Lake City.
Seymour, Sarah Libbie	Iowa City.
B. A., 1897; M. A., 1900,	
Shahan, Richard Franklin	Avery.
Sherbon, John Bayard	Conrad.
Siberts, Frank Leslie	Mt. Pleasant.
Smeltzer, Cora Hulda	Washington.
Smith, Charles Leonard	Iowa City.
B. A., 1891.	
Souders, John Cloyd	Rock Island, Ill.
Sullivan, Lawrence Francis	Downey.
Swift, Charles Henry	Lodgepole, Neb.
Talcott, Don Deroy	Arion.
Teufel, John Carl	Moscow.
Turner, Edward Marsh	Iowa City.

SECOND YEAR

Allen, Ray Wallace	Waterloo.
B. S., 1902.	
Atkins, George Leslie	Spirit Lake.
Averkieff, Olga	Vermillion, S. D.
Bailey, John William	Iowa City.
Beach, Arthur Earl	Carroll.
LL. B., 1897.	
Bernatz, Clarence Frank	West Union.
Besore, Albert Leroy	Ida Grove.
Blackmore, Harriet Narcissa	Aplington.
Blair, Fred Leroy	Yetter.
Bowers, Bert Alfred	Paullina.
Bowie, Louis Lee	Atalissa.
Brackney, Herman John	Washta.
Brown, Joe Wesley	Atlantic.
Burk, Frank Oscar	Davenport.
B. A. 1901, Augustana College.	
Burroughs, Paul Revere	Allison.
B. S., 1902, Drake University.	
Busta, Charles	Manley.

Christiansen, Jens	Waterloo.
M. Di., 1901, Iowa State Normal.	
Cline, Clifford M.	Cumberland.
Collins, Joseph Sylvester	Geneseo, Ill.
Conmey, Roy Merrill	Wyoming
Curtis, Walter Pingree	Independence.
Du Bois, Walter Lynn	Rockwell City.
B. S., 1902.	
Duckett, Harold	Utica, N. Y.
Duncan, James Todd	Albia.
Dunkel, George Kaspar	Iowa City.
Echternacht, Arthur Charles	Mechanicsville.
Ellyson, Charles Wright	West Liberty.
B. S., 1901, Cornell College.	
Ericsson, Charles Melvin	Dayton.
Etzbach, Joseph Frank	Mendota, Ill.
Fallows, Howard Daniel	Waucoma.
Fox, Walter Henry	West Union.
Giese, Charles Oscar	Pleasant Grove.
B. Ph., 1902.	
Goff, Harry LeRoy	DeWitt.
Griffin, Frank Leo	Monmouth.
Hall, Ray Edwin	Webster City.
Hands, Sidney Gillott	Iowa City.
Happe, Francis Alfred	Grandville.
Heard, Mary Kathrina	North East, Penn.
Ph. C., 1892, The University of Michigan.	
Hexom, Johan Daniel	Washington Prairie.
B. A., 1901, Luther College.	
Hoffman, Paul McConnell	Muscatine.
B. S. 1901.	
Housholder, Harold A.	Stockport.
Howell, James Roland	Reinbeck.
Howell, John Bert	Davis City.
Hummer, Leo Francis	Iowa City.
Jaenicke, Kurt	Clinton.
Kahler, Hugo Victor	Traer.
Kidd, Floyd Snelson	Iowa City.
King, Thomas Andrew, Jr.	Monticello.
Krider, Edward Edson	Waterloo.
Long, Thomas Lee	Cherokee.
B. Di., 1900, Iowa State Normal.	

Lynn, Arthur Ray	Iowa City.
McCoy Bernard Eberth	Corydon.
Mason, Roy Earl	Albia.
Maurer, Harvey Charles	Beloit, Wis.
Morton, William Glasspell	Iowa Falls.
Murphy, Frank Eugene	Iowa City.
Nimocks, Sarah Ausbon	Ida Grove.
Noland, Clyde Amandee	Boone.
Pfeiffer, Harry Earl	Independence.
Polevoy, Nina Dmitrievna	Vermillion, S. D
Potter, William Wolcott	Lone Tree.
Prescott, Lee Washbon	Sioux City.
Richey, Albert Roy	Lone Tree.
River, Edward Burleigh	Cresco.
Sells, Benjamin Bert	Winthrop.
Sheehan, Edward Michae	Independence.
Soper, Fred Clifford	Mt. Vernon.
Stelling, Chas. Henry Andrew	Iowa City.
Stockdale, Charles Paul	Lowder, Ill.
Stoltenberg, Walter Peter	Shelby.
Thomas, Clarence I.	Cresco.
Thompson, James Reed	Shell Rock.
Thornburg, William Vestal	Linden.
Van Metre, Richard Thompson	Waterloo.
Vaughan, Claude Luverne	Coon Rapids.
Walker, Evahn Russel	Oelwein.
B. S., 1900, Iowa State College.	
Weir, Matt Blakely	Cumberland.
Wolverton, William Curtis	Ft. Dodge.
Yavorsky, George William	Iowa City.

FIRST YEAR.

Albert, Fred, Jr.	Reinbeck.
Bateman, Howard William	Hayward, Wis.
Biebesheimer, George Allen	Vinton.
Boiler, William Fred	Muscatine.
Bowen, Jesse Clark	Maquoketa.
Brisbine, Royal Ellis	Downey.
Brown, Harry William	Waterloo.
Buckley, Fred Watson	Shelby.

Byrnes, Ralph Leonidas	Iowa City.
B. S., 1902.	
Cammack, William	Salem.
Cretzmeyer, Frank Xavier	Waverly.
Cuthbert, William Henry	Canton, S. D.
Darland, Fred Lambert	Iowa City.
Davis, John Graham	Indianola.
Decker, Rudolph Frederick	Mendota, Ill,
B. A., 1901, Wartburg College.	
Dietrich, Lewis Samuel	Iowa City.
B. Ph., 1902, Simpson College.	
Durkee, Harry Charles	Charles City.
Eyestone, Mrs. Martha Thrasher	Washington.
Gray, Alexander Hugh	Chisholm.
Gray, Luther Martin	Traer.
Hartwell, Samuel Willard	New Hampton.
Hawkinson, Oscar	Millersburg, Ill.
Hennessy, Albert Vincent	Iowa City.
Iles, John Thomas	Davenport.
Kessler, James Claude	Iowa City.
Langworthy, George	Massena.
Lashbrook, Elam Eugene	Waverly.
Lott, Guy Alexander	Menlo.
Love, Francis Leonard	Manson.
McGregor, James Charles	Davenport.
McMahon, Thomas	Victor.
Maher, Thomas Augustine	Iowa City.
B. A., 1902, St. Mary's College, Kas.	
Maris, Gerrit	Orange City.
Messenger, Fred Henry	Newell.
Moore, Walter Newlon	Iowa City.
Mullin, William	Iowa City.
Murphy, Harry Wilton	Waterloo.
Negus, Alvah	Iowa City.
B. A., 1890; M. A., 1899, Penn College.	
Negus, Mrs. Cora Weber	Iowa City.
Orr, William Graham	Iowa City.
Parker, Edward Stuart	Garden City, Minn
*Pentecost, Verne Reynolds	Panora.
Richards, Richard Lee	Cedar Rapids.
Roberts, Marcus Claude	Mediapolis.

*Transferred to the College of Liberal Arts.

Sandven, Nels O.	Thor.
Savage, Samuel Micajah	Salem.
Schipfer, Lloyd Albert	Sigourney,
Struck, Kuno Herbert	Davenport.
Stuhler, Louis	Monticello.
Thornburg, Willard Newell	Adel.
Tierney, Charles Matthews	New Hampton.
Wessel, Perry	Moline, Ill.
West, Walter Ernest	Corydon.
White, Edward Harvey	Correctionville.
Wickman, Herman John	New Hampton.
Williams, Creighton D.	Neola.
Woods, Arthur Daniel	Greenfield.
Worth, Craig	Indianola.

UNCLASSIFIED

Arnett, Lillie Amanda	Erie, Ill.
Bailey, Frederick William	Iowa City.
B. S., 1902.	
Bawden, George Stephen	Davenport.
Charlton, Max Rosecrans	Clear Lake.
Hollenbeck, Henry Stanley	Sheldon.
B. A. 1902.	
Hoover, Alden Robbins	Mucatine.
B. S., 1902.	
Jones, Edward William	Correctionville.
Keehl, Walter Edward	Battle Creek.
Lindsay, Harry Alexander	Independence.
McDermott, Peter John	Iowa City.
Robinson, Robert Edwin	Tripoli.
M. D., 1894.	
Walsh, John Graney	Perry

COMBINED COURSE

Ball, Walter McDowell	Iowa City.
Bean, Arthur Neal	Eagle Grove.
Bradley, Frank Timothy	Iowa City.
Hanson, Clarence Henry	Ft. Dodge.

Hayden, Clara May	Eldon.
Joynt, Martin John	Emmetsburg.
Matson, John Archie	Kossuth.
Moon, Herbert Lovelace	Iowa City.
Pahlas, Henry Martin	Elkader.
Stoner, Dayton	Iowa City.
Taylor, Maude Estella	Iowa City.
Yergey, Alford Luther	Villisca.

THE NURSES' TRAINING SCHOOL

THIRD YEAR

Moore, Letta	Des Moines.
White, Rena E.	Marion.

SECOND YEAR

De Garmo, Lutie Parmelia	Des Moines.
Lesueur, Nancy	Olathe, Kan.
Martin, Bernice Fidelia	West Union.
Matthews, Ora Ermina	Olathe, Kan.
Schley, Freda Claire	Cedar Rapids.
Soper, Mrs. Isabel Johnston	Stanwood.
Turk, Helen	Little Rock.

FIRST YEAR

Johnson, Jennie	Lake City.
Mahood, Sarah	Peterborough, Ont.
Millard, Bessie Pearle	Red Wing, Minn.
Somes, Candace Amelia	Stanwood.

THE COLLEGE OF HOMŒOPATHIC MEDICINE

DEGREES CONFERRED APRIL, 1092.

Alden, George H.
Clapp, Archie Burwell
Cogswell, Charles Herbert Jr.
Crew, Arthur Ellwood
Fullmer, Burt Emerson
McDowell, Gilbert Thompson
Page, Clarence Vernon

FOURTH YEAR

Bywater, Edward Napoleon	Garwin
Graves, Rex Vale	Hillsboro
Holman, Henry Delavan	Rockwell
Huff, Ellsworth Abram	Iowa City
Jackson, Anna	Oskaloosa
Keaster, Joseph Bruce	Lancaster
Kemp, Malcolm Edwin	Toledo
Owen, William Roy	Osage
Landy, Benjamin Brooks	Lake City
Waltman, William Henry	Iowa City
Wild, Peter Rowland	Toledo

THIRD YEAR

Adrian, Frank	Sigourney
Bond, David Kline	Lake City
B. S., 1881, Iowa State Normal	
Greene, Lynne Birdsall	Reinbeck
Hand, George	Hay Springs, Neb.
Humeston, Frank Enos	Union
Jacobsen, Robert Andrew	Lake View
Lintleman, Fred Richard	Lake City

Loizeaux, Charles Edward	Des Moines
Rowat, Harry Lewis	Des Moines
B. S., 1901, Des Moines College	

SECOND YEAR

Clark, Carl George	Scranton
Ingersoll, Perry Grant	Toledo
Kaufman, Ernest Leslie	Bridgewater
Macomb, Thomas T.	Paullina
Okerlin, Oscar William	Boone
Parsons, Harry Clifford	Elberon
Young, Frank Glynn	Paullina

FIRST YEAR

Alden, Frederick	Des Moines
Ihle, Charles William	Paullina
Kingsbury, Ernest Mills	Des Moines
Royal, Lester Ambrose	Mt. Pleasant, Mich

UNCLASSIFIED

Rogers, Ernest Albert	Iowa City
D D. S., 1892.	
Silver, William Ellsworth	Iowa City
M. Di., 1900, Iowa State Normal	

COMBINED COURSE

Cogswell, John Wilkinson	Cedar Rapids
Royal, Malcolm Allen	Des Moines

THE NURSES' TRAINING SCHOOL

THIRD YEAR

Wagner, Harriett Daisy	Des Moines
White, Effie Jane	La Hoyt

SECOND YEAR

Brown, Adelyn Ethel	Cedar Rapids
McWillliams, Martha Fern	Cedar Rapids
Rhodes, Charlotte Alice	Sigourney

FIRST YEAR

Clark, Sarah Beatrice	Scranton
Engeldinger, Susan	Harper
Madden, Mrs. Georgia	Des Moines

THE COLLEGE OF DENTISTRY

DEGREES CONFERRED JUNE, 1902

Allen, Henrietta Frances
Byers, Robert Emmett
Cook, Harry Delmar
Cress, George
Detwiler, Caroline
Harris, Cleo Stanley
Herbert, Vane Eli
Hildebrand, Joseph Arthur
Hopkins, Anna
Housholder, Frank Leroy
Jeffers, William Joseph
Johnson, Archie D.
Kain, William Edward
Lewis, LeRoy Ward
Lingo, Arthur Marling
Lynn, Emery Collins
Miner, Cora Rebecca
Morris, Robert C.
Mueller, Henry Christian
Oven, Adelbert Otto von, Jr.
Porter, James Tudor
Reedy, Edward Hager
Roth, Jay Arthur
Rupp, Hugh
Sherer, Roy Eugene
Small, Berton Alonzo
Spence, William Everett
Stimmel, Edgar Clifton
Suthers, Wilfie Abraham
Thode, Guy Eugene
Volland, Roscoe Henry
Yeoman, Mitchell Brice

THIRD YEAR.

Bailey, Edgar	Iowa
Beckman, Fritz Smith	Minnesota
Beeman, Clarence Evander	Iowa
Bell, Frank Joseph	South Dakota
Bigger, Lee Fisk	Iowa
Brown, Clarence Aubrey	Iowa
Clark, Floyd Chester	Iowa
Crowell, Irving Gardner	Wisconsin
*Daly, Eunice Elizabeth	Iowa
DeLano, Courtland Alva	Iowa
Duncan, Warren	Iowa
*Dunning, Walter Lyle	Iowa
Ellis, Gideon Charles	Iowa
English, William Kirk	Minnesota

*Requirements completed Nov. 26, 1902.

Fordyce, Chester	Iowa
Gallagher, Oscar Harley	Iowa
Green, Oliver Nelson	Iowa
Harned, Calvin Waldo	Iowa
Harper, Albert S.	Iowa
Hemminger, Dave Mitten	Pennsylvania
Hiett, Will Merriam	Iowa
Horrabin, Alfred	Iowa
Houser, Harry Pirnetti	Iowa
Keehl, Walter Edward	Iowa
Kepford, Joseph Clarence	Iowa
Lange, Henry Frederick	Iowa
*Lee, Arthur C.	Iowa
Meade, William Joseph	Iowa
*Meyer, Charles Edwin	Iowa
*Munger, Francis Elbriggs, Jr.	Iowa
Quaife, Howard Herman	Iowa
Rittler, Elmer George	Iowa
Sawyer, Burt Ray	South Dakota
Shannon, Howard Richie	Iowa
*Sherman, William Arthur	Iowa
*Smith, Will Samuel	Iowa
Swan, Charles James	South Dakota
*Waud, Clarence Cary	Iowa
Williams, Samuel Clyde	Iowa

B. S., 1901

Wyckoff, Craton Donald	Iowa

SECOND YEAR.

Addington, Earl	Iowa
Barrett, John Frederick	Iowa
Bidwell, Everett	Iowa
Bowers, Charles Kingsley	Iowa
Brock, Albert Jay	Iowa
Burns, John Joseph	Iowa
Cole, Alvernus Humphrey	Iowa
Cutler, Earl VanZile	Iowa
Duncan, Alvia Lee	Iowa
Eberhart, Frank Vaughan	Iowa

B. S., 1902

Erb, Benjamin H.	Iowa

Fear, Milo Francis	Iowa
Fitzgerald, Emerson Godfred	Iowa
Frahm, Frederick William	Iowa
Gardner, Charles Edward	Iowa
Goldthwait, Guy Garfield	Iowa
Harris, Madison Curtis	Oregon
B. A., 1898, The University of Oregon	
Hasek, Frank Vaclav	Iowa
Hemsworth, Leroy Clifton	Iowa
Hinsdale, Henry Vaughan	Iowa
Huff, Fay Leslie	Iowa
Humphrey, William Francis	Iowa
Irwin, James Newton	Iowa
Kennedy, James	Illinois
Kulp, Charles Joseph	Iowa
Love, Dorance Timothy	Iowa
McConnaughey, Ralph Otis	Iowa
McCulla, Roy	Iowa
McIntosh, Walter Scott	Iowa
McKibbin, George Paul	Iowa
McVay, Homer Reese	Iowa
Magruder, George Raymond	Iowa
Maresh, Reginald	Iowa
*Miller, Catherine Marguerite	South Dakota
Moss, William George	Iowa
Munger, Milo William	Iowa
Nies, George Henry	Iowa
Pelton, Henry Clark	Iowa
Rawhouser, Charles David	Iowa
Rugh, Frederick Walter	Iowa
*Shontz, Robert Ivan	Iowa
Shumway, Herbert Garfield	Iowa
Starbuck, William Ray	Iowa
Story, William Henry	Iowa
Taylor, Edwin Scott	Iowa
†Taylor, Maurice Hume	Illinois
Thompson, Earl G.	Iowa
Tinker, Francis Enos	Iowa
Vos, John	Iowa
Watros, Ray Alfonso	Iowa

*Irregular in Attendance.
†Left.

*Wesley, Rolland DeWitt	Iowa
Westenhaver, Earl H.	Iowa
*Wiler, Wesley David	Iowa
Woodruff, Lyman Wallace	Iowa
Wyant, Arthur C.	Iowa
Young, William Edward	Washington

FIRST YEAR

Adams, Waldo Johnson	Oregon
Arnold, John Rubi	Iowa
Black, Amy Thornton	Iowa
Brown, Mark D.	South Dakota
Buckley, Clarence Roy	Iowa
Christie, Bert Lee	Iowa
Clark, Robert Ernst	Iowa
Clark, Robert Lane	Iowa
Crawford, Guy	Iowa
Creighton, D. Murto	Iowa
Crouse, Roy Morton	Iowa
DeMots, Henry	Iowa
Dixon, Frank Leslie	Iowa
Dunkle, Chester Silas	Iowa
Gates, Arthur Garfield	Iowa
Gibbs, Harry Emmons	Iowa
Greenawalt, Richard Albert	Iowa
Hays, Owen Clyde	Illinois
Hedges, Bruce	Iowa
Heykens, Herman	Iowa
Hibbs, Thomas George	Iowa
Higby, Francis Marion	Iowa
Hobbie, Alfred Joseph	Iowa
Howe, George	Iowa
Hurst, Thomas Henry	Iowa
Jeffers, Lyle Lawson	Iowa
Johnson, Thomas William	Iowa
Leach, Don Sherman	Iowa
Leigh, Leo L.	Iowa
Lupton, Leslie Arthur	Iowa
McCord, Alexander Ichabod	Iowa
Maudlin, Lloyd Zell	Iowa
Mills, Rollin Virgil	Iowa

*Irregular in attendance.

Montgomery, Leroy Emerson	Iowa
Muir, William Wallace	Iowa
Murphy, Artemas Ward	Iowa
*Myler, Melvin Wesloy	Iowa
Paschal, Karl B.	Iowa
Polley, Lovette Morse	Iowa
Sawyers, Frank Lyman	Iowa
Scovel, Robert Morris	Iowa
Seydel, Robert Ashable	Iowa
Siverling, George Earl	Iowa
Soukup, Joseph Edward	Iowa
Stryker, Clarence Andrew	Iowa
Vail, Glenn Winfred	Iowa
Wade, Owen George	Nebraska
Watland, Clarence	Iowa
Whitsell, Loyd Lane	Iowa
Wilkinson, Clifford Austin	Iowa
Williams, Thomas Earl	Iowa

UNCLASSIFIED

Molsberry, Frank Roland	Iowa
Rathbone, Don Quincy	Iowa

PRACTITIONERS' COURSE

Munger, Francis Elbrigs, Jr. Iowa
D. D. S. 1903 (In course).

DENTAL ASSISTANTS' COURSE

Joy, Arthur Hamilton Iowa

COMBINED COURSE

Rider, Thomas Thiel Iowa

*Irregular in attendance.

THE COLLEGE OF PHARMACY

DEGREES CONFERRED APRIL, 1902

Barkdoll, Bertram Eugene
Blowers, Herbert Bert
Bruhn, Otto John
Coye, Elmer Lucius
Devine, Terry
Ford, Lawrence Thomas
Goodall, John Albert
Hanzlik, Paul
Hild, Harry
Hill, Albert Ernest
Jeppson, Alvin Levin
Junger, Paul Hugo
Longwell, Albert Floyd
Loucks, Richard Collier
Nixon, Andrew Wallace
Norton, Guy Coe
Shull, Harry White
Strong, Harry Lee
Sullivan, Peter Francis
Swain, Jay Wheaton
Van den Berg, Guy

SECOND YEAR

Book, John Ray	Griswold
Brown, Adin Noyes	Missouri Valley
Coad, William Ansley	Hull
Collins, Elizabeth Grace	Livermore
Duncan, Claud Earl	Iowa City
Hanson, John Foss	Ft. Dodge
Head, Scott Wilson	Abingdon, Ill.
B. A., 1901, Hedding College	
Knutson, Theodore H.	Calmar
Lohmann, Fred Christ	Wheatland
McLennan, John Sailor	Anita
Nixon, Samuel Ross	Clarinda
Riemcke, Charles August	Muscatine
Rice, Arthur Henry	Mendota, Ill.
Webbles, William Fred	Wheatland
Zimmerman, Charles Joseph	Waterloo

FIRST YEAR

Adam, Albert Herman	Volga City
Benn, Arthur Braxton	Gladbrook
Boysen, Tesa Hans	Cedar Falls
Dunn, Mrs. Minnie	Iowa City
Farley, John Aloysius	Waukon
Farrell, John Hogan	Winthrop
Fritzel, Clinton George	Conrad
Heide, Charlotte Andria	Durand, Ill.
Henderson, Lauren Roy	Moscow
Joder, Earl Bickley	Waterloo
Metzger, Royal Jacob	Shell Rock
Newell, James Stewart	Grundy Center
Opfer, Albert Benjamin	Waukon
Porter, Erl Watt	Gilchrist, Ill.
Rose, Edward Spangler	Vinton
Scar, Elmer Leander	Earlham
Selby, Ernest Standley	Guthrie Center
Whetstone, Robert Reed	Iowa City
Whiting, Nathan Dudley	Iowa City

UNCLASSIFIED

Corlett, Clara Marie	Iowa City

SUMMARY OF REGISTRATION

THE SUMMER SESSION 1902

The College of Liberal Arts	70	38	108
The Graduate College	19	24	43
Library Training School	2	37	39
Total	91	99	190

THE COLLEGE OF LIBERAL ARTS

FOURTH YEAR	MEN	WOMEN	TOTAL
Classical	9	14	23
Philosophical A	6	10	16
Philosophical B	19	14	33
Philosophical	4	1	5
Scientific	11	4	15
Civil Engineering	9	0	9
Electrical Engineering	2	0	2
Total	60	43	103

THIRD YEAR			
Classical	5	7	12
Philosophical A	3	7	10
Philosophical B	14	7	21
Philosophical	3	7	10
Scientific	16	5	21
Civil Engineering	11	0	11
Electrical Engineering	1	0	1
Total	53	33	86

SECOND YEAR

Classical	18	11	29
Philosophical A	8	12	20
Philosophical B	21	14	35
Philosophical	1	12	13
Scientific	12	4	16
Civil Engineering	17	0	17
Electrical Enginering	2	0	2
Total	79	53	132

FIRST YEAR

Classical	4	9	13
Philosophical A	1	0	1
Philosophical B	5	10	15
Philosophical	46	52	98
Scientific	24	7	31
Civil Engineering	16	0	16
Electrical Engineering	8	0	8
Mining Engineering	2	0	2
Total	106	78	184
Total in four college classes	298	207	505
Unclassified students	27	38	65
Professional students taking elective work	62	1	63
Total	89	39	128

THE GRADUATE COLLEGE

Candidates for the degree of Ph. D.	13	2	15
Candidates for the degree of M. A.	35	26	61
Candidates for the degree of M. S.	21	4	25
Students not candidates for degrees	9	11	20
Total	78	43	121

THE COLLEGE OF LAW

Third Year	72	1	73
Second Year	57	0	57
First Year	72	0	72
Unclassified	1	0	1
Combined Course	7	0	7
Students in the College of Liberal Arts taking elective work	3	0	3
Total	212	1	213

THE COLLEGE OF MEDICINE

Fourth Year	32	3	35
Third Year.	50	5	55
Second Year	74	5	79
First Year	56	2	58
Unclassified	11	1	12
Combined Course	10	2	12
Nurses' Training School	0	13	13
Total	233	31	264

THE COLLEGE OF HOMŒOPATHIC MEDICINE

Fourth Year	10	1	11
Third Year,	9	0	9
Second Year	7	0	7
First Year	4	0	4
Unclassified	2	0	2
Combined Course	2	0	2
Nurses' Training School	0	6	6
Total	34	7	41

THE COLLEGE OF DENTISTRY

Third Year	39	1	40
Second Year	55	1	56
First Year	51	0	51
Unclassified	2	0	2
Practitioners' Course	1	0	1
Dental Assistants' Course	1	0	1
Combined Course	1	0	1
Total	150	2	152

THE COLLEGE OF PHARMACY

Second Year	14	1	15
First Year	17	2	19
Unclassified	0	1	1
Total	31	4	35
Total including duplicates	1216	433	1649
Duplicates	172	35	207
Total excluding duplicates	1044	398	1442

ALPHABETICAL LIST OF STUDENTS

In this list abbreviations are used as follows:—

c—Combined Course.
D—The College of Dentistry.
D. A—Dental Assistants' Course.
D. P—Dental Practitioners' Course.
G—The Graduate College.
H—The College of Hom. Medicine.
L—The College of Law.
L. A—The College of Liberal Arts
M—The College of Medicine.
n—Nurses Training School.
P—The College of Pharmacy.
S—The Summer Session.
u—Unclassified.

Matriculation numbers precede the names. Other numbers refer to classes.

1687	Aardappel, Walter	L. A. 2
2256	Adam, Albert Herman	P. I.
1752–	Adams, Mary Annette	L. A. 2
2193–	Adams, Mrs. Minnie Barber	S.
2494–	Adams, Nina Elsie	L. A. 1
2609	Adams, Waldo Johnson	L. A. 3;D. c.
1574	Addington, Earl	D. 2
876	Adrian, Frank	H. M. 3
1268	Ahern, Timothy Joseph	L. 3
211–	Ainsworth, Adelaide Lorena	M. 4
577	Albert, Fred, Jr.	M. 1; G.
2363	Albright, George Carter	L. A. 1
2528	Alden, Frederick	H. M. 1
2442–	Alexander, Bertha Evelyn	L. A. 3
948	Alford, Lore	L. 1
560	Allbee, Gustavus, Jr.	L. 3
2005	Allen, Burritt Steward	L. A. 2
1001	Allen, Frank J.	L. 1
1714	Allen, Ray Wallace	M. 2
490	Allen, Roy William	M. 3
1688–	Allstrand, Mae Belle	L. A. 3
1500–	Anders, Mrs. Florence	S.
2393–	Anderson, Anne Marie	L. A. 1
1844	Anderson, Harold Charles	L. A. 2
443	Anderson, Rudolph Martin	L. A. 4
151	Angus, Haney Adelbert	M. 4
1629–	Ankeney, Alice	G.

519	Appel, Fred Lyons	M. 4
563–	Arnett, Lillie Amanda	M. u.
2244	Arnold, John Rubi	D. 1
1243	Artherholt, Luther Garfield	L. 3
1031	Arthur, Edwin Calhoun	L. 3
1873	Atkins, George Leslie	M. 2
2527	Atkinson, William Ira	L. A. u.
2163	Aurner, Clarence Ray	L. A. 4; S.
2185–	Aurner, Mrs. Nellie Slayton	L. A. 4; S.
1557–	Averkieff, Olga	M. 2
2354	Badgerow, Harvey Gordon	L. 1
2357	Badgerow, Ralph John	L. 1
980	Bailey, Edgar	D. 3
667	Bailey, Frederick William	G; M. u.
275	Bailey, John William	M. 2
1074	Baker, Mark Emery	L. 3
2167–	Baker, Mary Ellen	S.
166	Baldwin, Clare C.	M. 3; S.
745	Ball, George Washington, Jr.	L. 3
790	Ball, Walter McDowell	L. A. & M. c. 2
1785–	Ballard, Eugenia Maria	L. A. 1
1548	Ballard, George Henry	L. A. 4; S
2370–	Ballard, Martha Frances	L. A. 2
604–	Ballard, Mary Elizabeth	L. A. 2
2572	Ballou, John Kendrick	L. A. u; S.
663	Bannister, Robert James	L. 3
2650	Banta, George Sherman	L. A. 1
2613	Barber, Francis Adams	L. A. u.
1805	Barker, Erwin Jeremiah	L. A. 2
1564	Barrett, Edward Cecil	L. A. 2
1210	Barrett, Jacob Edward	L. A. 4; S.
1581	Barrett, John Frederick	D. 2
226	Bartholow, Claude Alpheus	L. A. 3
2608	Bateman, Howard William	M. 1
2437–	Battles, Perle Mae	L. A. 1
206	Baughn, Wilmot Lawson	L. 1; L. A. u.
2627–	Bauman, Ina Millie	L. A. 1
2364	Bawden, George Stephen	M. u.
2379	Beach, Arthur Earl	M. 2
2342	Bean, Arthur Neal	L. A. & M. c. 1
1780	Beatty, Floyd James	L. A. 1

1757	Beatty, Floyd Seydel	L. I.
2451–	Beatty, Mayme Bevington	L. A. 1
1696–	Beauchamp, Bertha Ewing	L. A. 2
262	Beaulieu, Leo Victor	L. A. 3
1151	Beck, William Edmund	G.
649	Beckman, Fritz Smith	D. 3
924	Bedford, Lyman Daniel	L. A. 3
199	Beeman, Clarence Evander	D. 3
373	Bell, Frank Joseph	D. 3
573	Bell, William Bonar	G.
2420	Benn, Arthur Braxton	P. 1
2630	Benshoof, Chester William	L. 1
2506	Benson, Ernest Allen	L. A. 4
1383	Bergman, Roy Earnest	L. 1
1685	Bernatz, Clarence Frank	M. 2
1683	Berry, John Williams	L. A. 2
597	Berryhill, James Guest, Jr.	L. A. 4
1615	Besore, Albert Leroy	M. 2
2482	Bevins, Nathan Sidney	L. A. 1
184	Bice, Gerald Roy	M. 4
1695	Bidwell, Everett	D. 2
2289	Biebesheimer, George Allen	M. 1
388	Bigger, Lee Fisk	D. 3
1275–	Biggs, Mrs. Eleanor Startsman	G.
409	Birss, George Alexander	L. 3
2491–	Bissell, Beulah Davies	L. A. 1
2243	Black, Amy Thornton	D. 1
1520	Blackmar, Harry E.	L. A. 4; S.
2211–	Blackmar, Mrs. Mary K.	S.
1178–	Blackmore, Harriet Narcissa	M. 2; S.
2551–	Blaine, Lela Rebecca	L. A. 3
1900	Blair, Fred Leroy	M. 2
1724	Blakely, Ernest Reuben	L. A. 2
2480–	Block, Mattie	L. A. 1
298–	Blum, Daisy Pearl	L. A. 3; S.
2436–	Blum, Effie Clare	L. A. 1
11	Blythe, Edward Ellsworth	G; M. 3
1083	Bock, William James	L. 3
2411–	Bockenthien, Bertha Madeline	L. A. u.
1238	Boehm, Walter Martinus	G.
380–	Boerner, Edna Louise	L. A. 2

1747	Bois, Harry Edward	L. A. 2
2292	Boiler, William Fred	M. 1
2586–	Bollinger, Ann Ethel	L. A. 1
1871	Bond, David Kline	H. M. 3
1650	Book, John Ray	P. 2
149	Boots, Frederick Warner	M. 3
1471	Bordner, Richard L.	L. 3
2438	Bos, Garrett	L. A. 1
954	Bosley, Roy Harrison	L. A. 3
602	Bowen, Jesse Clark	M. 1
2663–	Bowen, Mabel Meardon	L. A. 1
2260	Bowen, Murrel K.	L. A. 1
1821	Bowers, Bert Alfred	M. 2
1562	Bowers, Charles Kingsley	D. 2
1680	Bowie, Louis Lee	M. 2
1806	Bowman, Clarence Henry	L. A. 2
1515–	Bowman, Eliza	S.
140	Bowman, Howard Edgar	M. 3
1382	Bowman, John Gabbert	G; S.
1250	Bowser, William Francis	M. 3
2534–	Boysen, Laura Maria	L. A. 1
2424	Boysen, Tesa Hans	P. 1.
886–	Bozarth, Maude	S.
845	Brackett, Merritt	L. c.
1006	Brackney, Herbert Winfield	L. A. 3
1008	Brackney, Herman John	M. 2
406	Braden, Austin Lynn	M. 4
2502	Bradley, Benjamin Graham	L. A. 1
312	Bradley, Frank Timothy	L. A. & M. c. 2
785–	Brainerd, Helen Louise	L. A. 3
2468	Brainerd, Howard Hatch	L. A. 1
1279–	Branson, Mrs. Laura House	G.
2034–	Brant, Lucy Winifred	L. A. 2
2469	Breckenbaumer, Harry Ernest	L. A. 1
2278	Breese, Garfield Eugene	L. A. 1
659	Briggs, Charles Orin	L. A. 3
691	Briggs, Fletcher	G.
1249	Briggs, Francis William	M. 3
1414	Briggs, George Nathaniel	G.
1585	Briggs, Stewart Daniel	M. 3
2118	Brinck, Dana Everett	L. 2; S.

1425	Brink, Francis Newton	G.
2601	Brinton, William Thomas	L. A. 2
2250	Brisbine, Royal Ellis	M. 1
2553	Brittell, Chancey Lee	L. A. 1
2512–	Britton, Zoe	L. A. 1
1803	Brock, Albert Jay	D. 2
2132–	Brown, Adelyn Ethel	H. M. n.
1577	Brown, Adin Noyes	P. 2
1715	Brown, Arthur Adney	L. 2
2353–	Brown, Augusta	L. A. 1
1079	Brown, Clarence Aubrey	D. 3
1748	Brown, Earl	L. A. 2
435	Brown, Edwin Keech	L. 2
2463	Brown, Edward John Frederick	G.
1401–	Brown, Florence Emily	M. 3; G.
2380	Brown, Harry William	M. 1
1883	Brown, Joe Wesley	M. 2
2230–	Brown, Margaret Wright	S.
2245	Brown, Mark D.	D. 1
621–	Brown, Maud Anna	L. A. 4
2191	Bruce, Clarence Wallace	S.
2227–	Bruen, Mary	S.
2467	Bruins, William John	L. A. 1
1989	Bryson, Harold Lewis	L. A. 3
2032–	Bryson, Mrs. Stella Gearhart	L. A. u.
2294	Buckley, Clarence Roy	D. 1
376	Buckley, Fred Watson	M. 1
2493–	Buckley, Grace Emma	L. A. 1
2176–	Buetner, Meta Elizabeth	S.
908	Buffum, Hugh Straight	G; S.
1943–	Buffum, Mary Susie	L. A. 2
1729	Burbank, Manus Combs, Jr.	L. A. 2
2624–	Burge, Mrs. Adelaide Lasheck	G.
2510–	Burge, Edith	L. A. 1
2658–	Burge, Jennie	L. A. u.
2552	Burgeson, Henry Adolph	L. 1
273	Burgum, Harry Pitkin	L. A. 3
1801	Burk, Frank Oscar	M. 2; G.
2334	Burkheimer, Ira Arthur	L. A. 1
1894	Burmeister, August Otto	L. A. 4 & L. c.
1580	Burnett, George Ritter	L. 2

1762	Burnqnist, Bert Blaine	L. A. 2
1990	Burns, John Joseph	D. 2
70	Burns, Thomas John	M. 4
2184	Burnside, Charles	S.
2557	Burroughs, Paul Revere	M. 2
668	Burrus, James Harvey	L. 2
676	Burton, Harry Edward	G.
33	Bushnell, William Francis	M. 4
1825	Busta, Charles	M. 2
1622	Butler, William Pinkney	L. A. 2
1971	Byers, Frank Crockett	L. 2
855	Byrnes, Ralph Leonidas	M. 1; G.
624	Bywater, Edward Napoleon	H. M. 4
887	Cady, George Luther	G.
458	Calkins, Guy Smith	L. 3
1653	Call, Merlyn Bush	L. A. 2
172	Call, Roy Guyon	L. A. 4; S.
1796	Cammack, William	M. 1
2194–	Campbell, Gertrude Lyle	S.
2226–	Carey, Miriam Eliza	S.
784	Carle, Frank Clifford	M. 3
1965	Carlson, Christian R.	L. A. 2
686	Carlson, Ernest Emil	L. A. 4; 5.
2432–	Carpenter, Mrs. Orville H.	L. A. u
2504–	Carroll, Frances Alma	L. A. 1
74	Carter, Edward Albert	L. A. 4
2660–	Case, Lucy Roberts	G.
2402	Casey, James Wesley	L. A. 1
2626	Caster, Charles Edward	L. A. 2
2392	Catlin, Frank Milo	L. A. 1
1196–	Cavanagh, Lucy Mary	G; S.
197	Chamberlain, Ben. H.	M. 4
1421	Chamberlain, Park	G.
374–	Chamberlin, Louise	S.
2446	Champion, Roy B.	L. A. 1
891	Charlton, Max Rosecrans	L. A. 4; M. u.
1839–	Chase, Nellie Althea	L. A. 2
1808–	Chase, Olive Merrill	L. A. 2
2381–	Chawner, Mary Grove	G.
1458	Chesley, Frank Ephraim	L. A. 3
1892	Choate, Rufus Clark	L. A. 4

1853	Christiansen, Jens	M. 2
2339	Christie, Bert Lee	D. 1
657	Clapp, Albert Carpenter	L. A. 4
1769–	Clapp, Alice Louise	L. A. u
1677	Clark, Carl George	H. M. 2
319	Clark, Floyd Chester	D. 3
2492–	Clark, Gertrude Lorraine	L. A. 1
2257	Clark, Robert Ernst	D. 1
2549	Clark, Robert Lane	D. 1
2646–	Clark, Sarah Beatrice	H. M. n
1484	Clark, Whit H.	G.
1722	Claussen, George	L. 2
1065	Clearman, Albert Edward	L. A. 3
1326–	Clearman, Hattie Marie	G.
2447–	Clearman, Louise Isabella	L. A. 1
2203	Clegg, Earl G.	S.
1165	Clegg, Samuel Harvey	L. 3; S.
1365	Cline, Clifford M.	M. 2
1663	Coad, William Ansley	P. 2
2588	Coakley, Charles Arthur Eugene	L. 1
755	Coast, William Oscar	L, A. 4; S.
438	Coffin, Frank W.	L. A. 2
1384	Cogswell, John Wilkinson	L. A. 3; H. M. c; S.
2404	Cohoon, Brock Edwin	L. A. 1
897	Cole, Alvernus Humphrey	D. 2
1778	Cole, Franklin James	L. 2; S.
2024–	Cole, Viva Victoria	L. A. 1
1551	Collins, Edward Robert	G.
2071–	Collins, Elizabeth Grace	P. 2
1860	Collins, Joseph Sylvester	M. 2
2012–	*Conley, Agnes Mercedes	L. A. 4
1654	Conmey, Roy Merrill	M. 2
1198	Conner, Jacob Elon	G.
1009	Cook, Roy Arthur	G; L. 2
561–	Cooper, Esther Leiper	L. A. 4
2499	Cooper, Frederick Richard	L. A. 1
1994–	Corlett, Clara Marie	P. u.
2210	Corlett, Robert Kinley	L. A. 2; S.
2413–	Corso, Ignatia	L. A. 1

*Died Nov. 4, 1902.

2225–	Cotton, Mrs. Gertrude Jacobs	S.
1339	Cotton, Richard Lee	L. u.
2417	Coulter, Wilbur Edwin	L. A. 1
224	Coulthard, George Harry	M. 3
969	Cox, Clifford Vernard	L. 3
1942	Cox, Guy	L. 1
2477–	Crane, Agnes Mae	L. A. 2
485	Crane, Edward Harrison	M. 3
247	Crane, Ernest B.	L. A. 3
508	Crane, Eudell Thomas	M. 3
2019	Crary, Archie West	L. 3
2483–	Cratty, Mabel Estelle	L. A. 2
2518	Crawford, Guy	D. 1
263–	Crawford, Tillie Jane	L. A. 3
2452	Creighton, D. Murto	D. 1
44	Creswell, William L.	M. 4
2427	Cretzmeyer, Frank Xavier	M. 1
1112	Crockett, Frank Walford	L. 3
2662–	Crockett, Luella	L. A. u.
1270–	Cronin, Sarah Elizabeth	L. A. 4
321	Cross, Cash R.	L. A. 3
1776	Cross, John Eli	L. 2
2556	Crossan, John Wesley	L. A. 1
2352	Crouse, Roy Morton	D. 1
245	Crowell, Irving Gardner	D. 3
852	Crum, William Edwin, Jr.	L. 3
2036	Cummins, William Cyrus	M. 4
733	Currier, Albert Moore	L. A. 4
295–	Curtis, Alice Bertha	L. A. 4; G.
2653	Curtis, John Delmond	L. 1
1667	Curtis, Walter Pingree	M. 2
982	Cushing, Raymond George	L. A. 3
2246	Cuthbert, William Henry	M. 1
1656	Cutler, Earl Van Zile	D. 2
684–	Dakin, Amy Dorothy	L. A. 4
299–	Dalton, Ula Elizabeth	L. A. 4
7–	Daly, Eunice Elizabeth	D. 3
124	Danell, Karl August	M. 3; G.
2223–	Daniels, Adeliza	S.
1811	Danielson, Henry Clarence	L. A. 2
2213–	Dansdill, Theresa Winifred	S.

2515	Darland, Fred Lambert	M. 1
2346–	Darland, Grace	L. A. 1
700	Daum, Philip Hugh	L. A. 1
1405–	Daum, Selma A.	G.
1787–	Davidson, Lois Craig	L. A. 2
2337	Davidson, Orin Victor	L. A. 1
1763	Davies, Robert Geiser	L. A. 2
296	Davis, Arthur William	G.
2486	Davis, Charles George	L. 1
1473–	Davis, Florence Mabel	G; S.
2444	Davis, John Graham	M. 1
1856	Davis, Odin Royston	L. A. 3
87	Day, Archie Loraine	M. 3
253	DeBusk, William Hayden	L. A. 3
2672–	DeGarmo, Lutie Parmelia	M. n.
1908	De Hart, Otto Dell	L. A. 2
318	DeLano, Courtland Alva	D. 3
2249	De Mots, Henry	D. 1
678–	De Sellem, Anna Louise	L. A. 2
2378	Dean, Basil	L. A. 1
2284	Decker, Rudolph Frederick	M. 1
724	Delavan, George Edwin, Jr.	L. 3
1789–	Dennis, Edna Clementine	L. A. 1
1867	Diamond, Tobias Ellsworth	L. 2
1404	Dick, George Stuart	G.
2537	Dickson, Charles Frank	L. 1
2602	Dietrich, Louis Samuel	M. 1
278	Dixon, Frank Leslie	D. 1
1669–	Donahue, Alice Elizabeth	L. A. u
2101	Donovan, Louis Patrick	L. A. 3
1411	Dorcas, Herbert Clifford	G.
2209	Dornon, Alexander McLeod Milligan	S.
1749	Dorweiler, Paul	L. A. 3
2485–	Doty, Eula	L. A. 1
2538	Dougherty, Ira Elmer	L. 1
2473	Dougherty, Raymond Philip	G.
2445	Dow, Harry Earnest	L. A. 1
1451	Downey, Ezekiel Henry	S.
195	Downing, Leroy Morgan	M. 4
1099	Drake, Fred Collins	L. 3
1684	Drake, Guy Arthur	L. A. 2

242	Drewry, Ray Forest	L. A. 4 & L. c
912	DuBois, Walter Lynn	M. 2
1997	Duckett, Harold	M. 2
49	Dulin, John Albert	M. 4
1604	Duncan, Alvia Lee	D. 2
1623	Duncan, Claud Earl	P. 2
2330	Duncan, Cleveland Reuben	L. A. 1
476	Duncan, James Todd	M. 2
65	Duncan, Warren	D. 3
2201–	Dunham, Martha Aurilla	S.
1893	Dunham, Ralph Abner	L. 2
1030	Dunkel, George Kaspar	M. 2
2409	Dunkel, Chester Silas	D. 1
284–	Dunlap, Fanny	L. A. 3
2656–	Dunlap, Marcia	L. A. 1
2282	Dunn, Delbert	L. 1
2618	Dunn, Edward Gregory	L. 1
565	Dunn, John Edward	M. 3
2290–	Dunn, Mrs. Minnie	P. 1
303	Dunning, Walter Lyle	D. 3
2253	Durkee, Harry Charles	M. 1
683	Dye, Harvey Leroy	L. A. 3
774	Dykstra, Clarence Addison	L. A. 4
685	Dykstra, Sylvester Henry	L. 1; G.
639	Eaker, Jay Felts	G; S.
2220–	Eason, Fannie Mabel	S.
2603	Eastman, Clarence Willis	G.
2562	Easton, George Eugene	L. A. 1
537	Eberhart, Frank Vaughan	D. 2
2348	Ebersole, Edwin Christian	L. A. 1; S.
1875	Echternacht, Arthur Charles	M. 2
2454	Eckhard, George Frederick	L. A. 3
2573–	Eckhard, Lydia B.	L. A. u
2368	Eckhardt, Henry Jacob	L. A. 1
1445–	Eddy, Helen May	G; S.
551–	Eddy, Mary Louise	L. A. 4; S.
763	Ede, Ernest D.	S.
1271	Edgerton, Robert Henry	L. A. 3
2319	Edinger, Paul Frederick	L. A. 1
1287	Edmonds, William Frank	M. 3
567	Edmondson, Charles Howard	L. A. 4; S.

803	Egan, George William	G.
2065	Elbert, Hoyt Hugh	L. A. 1
362–	Elliott, Ethel Anna	L. A, 4
2205	Elliott, Leroy Patton	S.
94	Ellis, Gideon Charles	D. 3
2091	Ellyson, Charles Wright	M. 2; G.
1905	Emmert, Max Washabough	L. A. 2
2130	Emmons, Orrin William	L. 2
2671–	Engeldinger, Susan	H. M. n
125	Engelke, Charles Rufus	L. 3
181	English, William Kirk	D. 3
2085	Estes, Joel Sidney	L. 2; S.
1641	Erb, Benjamin H.	D. 2
1751	Ericsson, Charles Melvin	M. 2
1914	Etzbach, Joseph Frank	M. 2
1947–	Evans, Edith Price	L. A. u.
690–	Everett, Emma Dolorosa	L. A. 2
2441–	Eyestone, Mrs. Martha Thrasher	M. 1
1003	Fagan, Ralph Mather	L. A. 2
1974–	Fair, Etta Pearl	L. A. 2
2001	Fairall, Herbert Snowden, Jr.	M. 4
1635	Fallows, Howard Daniel	M. 2
2488	Farley, John Aloysius	P. 1
559	Farquhar, S. Walter	L. 3
2308	Farrell, John Hogan	P. 1
2020	Farrell, Thomas	G.
1807	Fay, Wylie Webb	L. A. 2
1632	Fear, Milo Francis	D. 2
2578–	Felkner, Anne Winslow	L. A. 1
2415	Felt, Stanley Evans	L. A. 1
1187–	Fenton, Jennie Inez	L. A. 4
2520–	Ferson, Mrs. Ella Jane	L. A. u.
1068	Ferson, Merton Leroy	G.
2340–	Field, Agnes Jeanette	L. A. 1
150	Filer, Paul Schenck	G.
1726	Files, Ray	L. A. 2
1917	Finkbine, Robert Hoyt	L. A. 2
345	Fish, James Wilson	L. A. 4
2004	Fitz, David John	L. A. u.
2324	Fitz, Earle Moore	L. A. 1
720	Fitz, Joseph Hamilton	M. 3

2394	Fitzgerald, Edward Clarence	L. A. 1
1571	Fitzgerald, Emerson Godfred	D. 2
1232	Fitzpatrick, Daniel Helen	L. 2
2550	Fitzpatrick, John Michael	L. A. u.
424	Fitzpatrick, Miles Joseph	L. 3
1312	Fitzpatrick, Thomas Jefferson	G.
2555–	Fleming, Ruth	L. A. 3
2187	Ford, Percy Lindsay	S.
1004	Fordyce, Chester	D. 3
2498	Fortner, Frank Ellis	L. 1
2496–	Fortner, Mrs. Grace Gibson	L. A. u.
2165–	Forward, Mary Cornelia	S.
652–	Foster, Blanche Fairfax	L. A. 4; G.
881	Foster, Charles Clarence	L. A. 3; S.
1614	Foulk, Frank Erastus	M. 3; G.
1668	Fox, Walter Henry	M. 2
1434	Fracker, George Cutler	G; S.
1661	Frahm, Frederick William	D. 2
1948–	Frazier, Zoe Rae	L. A. u.
2356	Freeman, Earnest Franklin	L. 1
2344	French, Hiram Earl	L. A. 1
2343	French, Royal F.	L. A. 1
2541	Fritzel, Carl C.	L. A. u.
2579	Fritzel, Clinton George	P. 1
2657	Fullerton, Robert Parsons	L. A. 1
2177–	Fulton, Nannie Pearse	S.
1678–	Gabriel, Grace Ethel	L. A. 2
359	Gallagher, Oscar Harley	D. 3
1643	Gardner, Charles Edward	D. 2
627–	Gardner, Frances Maud	L. A. 4
2622	Garretson, Gail Garfield	L. 1
1991	Garver, Frank Harmon	G.
1857	Gaston, Myron Clinton	G.
2231–	Gatch, Ruth Gordon	S.
2273	Gates, Arthur Garfield	D. 1
171	Gates, Ernest H.	L. A. 3
391–	Gay, Anna May	L. A. 4
2591–	Gaymon, Leah May	G.
2629	Gelderblom, Murray Edward	L. A. 1.
1710	Genung, Norman Seth	L. 2
2183	Gepson, Edward D.	S.

660– Geyer, Ellen S.
2500 Gibbs, Charles John L. A. 1
2305 Gibbs, Harry Emmons D. 1
1918 Giese, Charles Oscar M. 2; G.
1320 Gillespie, John Leonard L. 3
1879– Goetz, Antoinette L. A. 1
2399 Goetz, Antony Lewis L. A. 1
2084– Goff, Charlotta S.
1619 Goff, Harry LeRoy M. 2
1631 Goldthwait, Guy Garfield D. 2
2470– Gonwick, Clara G.
1569 Goodwin, James Edwin L. A. 1
1492 Gordon, Arthur Clarkson L. A. 2
618– Gordon, Pearl Avis L. A. 2
66 Gordon, William Null M. 3
2382 Gorman, George Curran L. 1
413 Gow, James Ellis G.
656– Graff, Lulu A. G.
56 Graves, Rex Vale H. M. 4
2295 Gray, Alexander Hugh M. 1.
28 Gray, George Henry M. 3
2361 Gray, Luther Martin M. 1
79 Gray, Oscar Sylvester M. 3
1906 Gray, Ross Calhoun L. 2
1848 Green, John Reuben L. A. 2
718 Green, Oliver Nelson D. 3
2440 Green, Thomas William L, A. u.
1793 Greenawalt, Richard Albert D. 1
167 Greene, Galen Edwin L. 1; L. A. 4 c; S.
1737 Greene, Lynne Birdsall H. M. 3
1719 Gregory, Horace Whiting L. A. 1
1597 Griffin, Frank Leo M. 2
1664 Griffith, Dwight Moody L. A. 2
1741– Griffith, Grace L. A. 2
2592– Grosenbaugh, Carrie L. 3
241– Grothaus, Tarana Johanna M. 4
1491– Groves, Ada Dell S.
2179– Gunsolus, Helen Emily S.
539 Gurley, Zenas Robinson L. 3
1949– Haas, Laura Neely L. A. u.
1849 Haas, Robert Arthur L. A. u.

1981	Haddock, Ross Boyd	L. 2
926	Hadley, Herbert Erwin	L. 3
1288	Hagler, Elisha Marion	L. A. 4
2192–	Haight, Mary Blanche	S.
2406–	Haldeman, Virginia M.	L. A. 1
1896	Hall, Ray Edwin	M. 2
1424	Hamilton, Arthur Stephen	G.
2620	Hampson, John Albert	L. 1
1222	Hand, George	H. M. 3
1626	Hands, Sidney Gillott	M. 2
2362	Hannum, Roy Findley	L. A. 1
736	Hanson, Clarence Henry	L. A. 4 & M. c; S.
2048	Hanson, John Foss	P. 2
786	Hanson, William Patrick	L. 3
1880	Happe, Francis Alfred	M. 2
316	Harned, Calvin Waldo	D. 3
677	Harned, Luther Martin	L. 3
134	Harper, Albert S.	D. 3
1861	Harris, Fred Elwon	L. A. 4
2039	Harris, Madison Curtis	D. 2
1819–	Hartsock, Margaret Ellen	L. A. 2
2279	Hartwell, Samuel Willard	M. 1
2045	Hasek, Frank Vaclav	D. 2
1706	Haskins, Ernest Herbert	L. A. 2
2208–	Hastings, Jessie Pearle	S.
2544	Hawkinson, Oscar	M. 1
1838–	Hayden, Clara May	L. A. & M. c. 2
2153	Hayden, Ulysses Grant	L. 1; S.
589–	Hayes, Eleanora Byington	L. A. 4
2587–	Hayes, Katherine Alice	L. A. u.
2258	Hays, Owen Clyde	D. 1
1642	Head, Scott Wilson	P. 2
1322	Heald, Francis Alfred	L. 3
2648	Healy, William	L. A. 1
1582–	Heard, Mary Kathrina	M. 2; L. A. 3; S.
115	Hearst, George Edward	M. 3
2511–	Heath, Maggie May	G.
2456	Hedges, Bruce	D. 1
2495	Heffner, John Samuel	L. A. 1
2265–	Heide, Charlotte Andria	P. 1
746	Hellberg, Will Fred	L. A. 3

350	Heminger, Amos Lincoln	L. 3; L. A. 4; S.
2532	Hemmer, Emil John	L. A. 1
861	Hemminger, Dave Mitten	D. 3
1998	Hemsworth, Leroy Cliftain	D. 2
2410	Henderson, Lauren Roy	P. 1
2285	Hennessy, Albert Vincent	M. 1
1956	Hennessy, Edward Francis	L. A. 2
449–	Hermann, Cornelia Josephine	L. A. 4
2465	Herrick, William Karl	L. 2
1602	Hershire, Richard Aaron	L. A. 2
854	Hess, Adam Koingmacher	L. A. 4; L. 1; S.
412	Hetzel, Clarence Charles	M. 4
2661–	Hetzel, Olive Belle	L. A. u.
1617	Hexom, Johan Daniel	M. 2
2306	Heykens, Herman	D. 1
2299	Hibbs, Thomas George	D. 1
534	Hiett, Will Merriam	D. 3
2247	Higby, Francis Marion	D. 1
2431	Hill, Eddy Cecil	L. A. 3
701	Hill, George Edgar	L. A. 4
2094–	Hinkle, Bessie Catherine	L. A. 1
2093–	Hinkle, Jessie Ellen	L. A. 1
1423–	Hinman, Annie Evelyn	S.
1891	Hinsdale, Henry Vaughan	D. 2
2255	Hobbie, Alfred Joseph	D. 1
2288	Hobby, William Richard	L. A. 1
1496–	Hodge, Lida Jane	L. A. 2
716	Hoffman, Coleman Lovejoy	M. 4
661–	Hoffman, Mabel V.	L. A. 3
588	Hoffman, Paul McConnell	M. 2
1157–	Hofman, Minnie	L. A. 3
164	Hollenbeck, Henry Stanley	G. & M. u.
2665–	Hollister, Laura Isabel	G.
236	Holman, Henry Delavan	H. M. 4
2377–	Holmes, Grace Maude	L. A. 2
2365	Holsteen, Dio Mark	L. A. 1
2617–	Holt, Harriette Grace	G.
739	Hooker, Ira Sidney	M. 4
725	Hoover, Alden Robbins	M. u.
2168	Horner, Robert Messenger	S.
1536	Hornsyld, Peder Pedersen	S.

99	Horrabin, Alfred	D. 3
260–	Hossfeld, Eleanor	L. A. 4
1050	Houser, Cass Thomas	M. 3
205	Houser, Harry Pirnetti	D. 3
1899	Housholder, Harold A.	M. 2
1478–	Howard, Libbie C.	S.
2283	Howe, George	D. 1
898	Howell, George Key	L. 3
1675	Howell, James Roland	M. 2
1840	Howell, John Bert	M. 2
2647	Hubbard, Elbert Hamilton	L. A. 1
2649	Hubers, Henry William	L. A. u.
153	Huff, Ellsworth Abram	H. M. 4
1827	Huff, Fay Leslie	D. 2
2189	Huggett, J. Percival	L. A. 4; G; S.
1281–	Hughes, Louise Elizabeth	G; S.
1107	Hull, Elmer Clapp	L. 3
1977	Humeston, Frank Enos	H. M. 3
1699	Hummer, Leo Francis	M. 2
1954–	Hummer, Sarah Agatha	L. A. 2
1613	Humphrey, Benton Wade	L. 2; G.
1637	Humphrey, William Francis	D. 2
1265	Hunt, Percival	G; S.
1269	Hunt, Ralph Blaine	L. 1
392	Hunter, Charles Randall	L. 3
1352	Hunter, John McCrary Griggs	L. 3
2276	Hurst, Thomas Henry	D. 1
1542–	Hussey, Lena Alice	L. A. 4; S.
116	Huston, Samuel Wesley	M. 4
2212–	Hutchinson, Ada Flynn	S.
1716	Hutchinson, Everett Ross	L. A. 2; S.
347–	Hutchinson, Sarah Delia	G.
249	Hutchison, George Gaylord	L. A. 4
2459	Hutchison, Raymond Orin	L. A. 1
83	Huttenlocher, Forest	L. 3
2398	Ihle, Charles William	H. M. 1
2533	Iles, John Thomas	M. 1
2416	Illick, John Theron, Jr.	L. A. 1
1999	Ingersoll, Perry Grant	H. M. 2
2033	Irvine, Albert Elmer	L. 2
1681	Irwin, James Newton	D. 2

427	Irwin, Perle Clifton	M. 3
2396	Isenberg, Irving Ray	L. A. 1
2461–	Isherwood, Genevieve	L. A. u.
257	Ivins, Harry Morgan	L. A. 3
222–	Jackson, Anna	H. M. 4
1946	Jackson, Edwin Roy	L. A. 3
331	Jackson, Thomas Sunter	L. 3
2421–	Jacobs, Sadie	L. A. 1
59	Jacobson, Robert Andrew	H. M. 3
1556	Jaenicke, Kurt	M. 2
1493	Jameyson, Charles Oscar	S.
2350–	Jamison, Jeannette	L. A. 1
364–	Jarvis, Carolyn Belle	L. A. 4
2645	Jeffers, Clyde Garfield	L. 1
2372	Jeffers, Lyle Lawson	D. 1
834	Jeffers, William Joseph	L. A. u.
2029	Jennings, Avery Graham	L. A. u.
2355	Joder, Earl Bickley	P. 1
1888	Johnson, Daniel Graham	L. 2
237–	Johnson, Eliza Love	L. A. 4
1915	Johnson, Henry Charles	S.
1069	Johnson, James Orin Elmer	L. 1
2150–	Johnson, Jennie	M. n.
2514	Johnson, Lewis Gerhard	L. 1
2298	Johnson, Thomas William	D. 1
2631	Johnson, William Oscar	G.
2548	Johnston, Albert Cleland	L. 1
762	Johnston, Edward Ray	L. A. 3
2341	Jones, Edward William	M. u.
2164–	Jones, Frances	S.
325	Jones, Harry Jacobs	M. 3
228	Jones, Henry Durst	M. 4
1912	Jones, Nyle William	L. 1
664	Jones, Peter Henry	L. 3
2476	Jones, Ralph Emerson	L. A. 1
122	Jones, Walter William	M. 4
2325–	Jones, Wata Jane	L. A. 1
2668	Joy, Arthur Hamilton,	D. a.
2607–	Joy, Clarissa Jane	L. A. u.
2351	Joy, William Bixby	L. A. 1
603	Joynt, Martin John	L. A. 4 & M. c.

1554	Kahler, Hugo Victor	M. 2
1705	Kahler, Waldo Emerson	L. 2
2129	Kampmeier, August	L. A. 4; G; S.
2196	Kapp, Walter Edward	S.
2614–	Kastman, Valborg	L. A. u.
2014	Kaufman, Ernest	H. M. 2
1969	Kawakami, Kiyoshi	S.
8	Keaster, Joseph Bruce	H. M. 4
2333	Keck, Walter L.	L. A. 4 & L. c.
35	Keehl, Walter Edward	D. 3; M. u.
1388	Kelley, Edmund Levi, Jr.,	L. A. 4
1036	Kelley, Richard Carlyle	L. A. 4
753–	Kelley, Rita Amanda	G.
339	Kelso, Charles David	L. 3
2577	Kelty, Harland Edward	L. A. 1
157	Kemmerer, Charles Tilghman, Jr.,	L. A. 4 & L. c.
158–	Kemmerer, Leila	L. A. 4
169–	Kemmerer, Sara Dorcas	L. A. 4
533	Kemp, Malcolm Edwin	H. M. 4
2086	Kenderdine, Glenn Albert	L. 2
2561	Kendrick, William Randolph Curry	L. 1
1826	Kennedy, James	D. 2
651	Kent, Carl Volney	L. A. 3
1396–	Kent, Grace Helen	G.
840	Kenyon, Earl Dudley	L. 3
170	Kepford, Joseph Clarence	D. 3
2233	Keppler, Chester John	L. A. 1
699	Kern, Frank Dunn	L. A. 3
2302	Kessler, James Claude	M. 1
1593	Kidd, Floyd Snelson	M. 2
1038	Kimball, Frank Burton	L. 2
1779–	Kimple, Mae Belle	L. A. 2
864–	King, Lylas Sarah	L. A. u.
1866	King, Thomas Andrew, Jr.,	M. 2
2623	Kingsbury, Ernest Mills	H. M. 1
750–	Kingsbury, Maud Cleaveland	G.
968	Kirby, James Francis	L. 2; S.
915	Kleinsorge, Rudolph Ernst	L. A. 3; S.
457	Klise, Harrold Edward	L. 2
1768	Knapp, Carl William	L. A. 2
2316–	Knauer, Eda Dorothy	L. A. 1

2644	Knox, Clem	L. 1
2545	Knupp, Samuel C.	L. A. 3
1655	Knutson, Theodore H.	P. 2
2405	Koeper, Frank Ernest	L. A. 1
1859	Koser, George Doner	L. 2
584	Krause, Charles Schutz	M. 3; S.
338	Krebs, Robert D.	L. A. 4
1929	Krider, Edward Edson	M. 2
612–	Kriechbaum, Bertha Emily	L. A. 3
2059	Kruse, Paul Jehu	L. A. 2
1160	Kuck, Orlando Adolph	L. 3
705	Kuhlemeier, Harry Floyd	L. 2
1674	Kulp, Charles Joseph	D. 2
144	Kulp, Ray Ranney	M. 3
1147	Kunz, John Franklin	L. A. 2
1755	Lahman, Rush Clark	L. A. 2
433	Lambert, Charles Irwin	G; M. 4
1708	Lambert, Clarence Joseph	L. A. 2
1495–	Lambert, Emma Frances	S.
1410	Lambert, John Joseph	G.
2449–	Lancaster, Alice May	L. A. 1
658–	Landers, Lou Cornelia	L. A. 3; S.
2595–	Landon, Pearl May	L. A. u.
1858	Lane, Dick Richardson	L. 2
2159–	Lane, Maud Edna	S.
47	Lange, Henry Frederick	D. 3
2428	Langworthy, George	M. 1
2303	Larkin, Leo Ambrose	L. 1
2419	Lashbrook, Elam Eugene	M. 1
2159–	Lathrop, Frances Emma	S.
335	Lauer, Arnold William	L. A. 3
1842	Law, William Robert	L. 2
2385	Leach, Don Sherman	D. 1
544	Lee, Arthur C.	D. 3
1966	Lees, James Henry	G.
2293	Leigh, Leo L.	D. 1
2497	Lemon, Frank Carl	L. A. 1
2141–	Lesueur, Nancy	M. n.
1824–	Lewis, Laura Iowa	L. A. 3
2009	Lewis, Warren Herbert	L. 1
611–	Lilly, Fanny Parmer	L. A. 3

2643	Linderman, Lloyd Howe	L. A. 1
2508	Lindsay, Harry Alexander	M. u.
62	Lintleman, Fred Richard	H. M. 3
1618	Linville, Guy Pittman	L. 2
2590	Lister, Clarence Sylvester	L. A. 2
2669	Lochridge, Harvey Hayes	G.
2134–	Logan, Alida Frances	L. A. u; S.
1558	Lohman, Fred Christ	P. 2
1085	Loizeaux, Charles Edward	H. M. 3
1015–	Loizeaux, Jennie Olive	L. A. 4
1694–	Long, Cecile Florence	L. A. 2
2107–	Long, Pearl	L. A. 1
1851	Long, Thomas Lee	M. 2
2157	Longstreth, Oscar Dolsen	S.
1703	Longueville, Oliver	L. 2
2619	Lorenz, Charles Frederick	G.
468–	Lorenz, Charlotte Marie	G.
1809	Lott, Guy Alexander	M. 1
1739–	Louis, Anna	L. A. 2
1431	Louis, John J.	G; S.
2054	Love, Dorance Timothy	D. 2
2015	Love, Francis Leonard	M. 1
3332	Luce, Fred Leslie	L. A. 1
2547	Lupton, Leslie Arthur	D. 1
1818–	Lynch, Alice Marie	L. A. 3
2374	Lynch, John Daniel	L. 1
1931	Lynn, Arthur Ray	M. 2
2096–	Lynn, Margaret May	L. A. 1; S.
1727	McAuliff, Leslie	L. A. 2; S.
283	McCall, Harry Ernest	M. 4
1092	McClain, Donald	L. 3
131	McClain, Henry Griffiths	L. A. 4; S.
52	McClure, Ernest Covey	M. 4
2390	McClurkin, Oak Beck	L. A. 1
2287	McClusky, Harl Volney	L. A. 1
1646	McConnaughey, Ralph Otis	D. 2
1292	McConnell, Arthur Harris	L. 3
2251	McCord, Alexander Ichabod	D. 1
1774	McCord, Ray Afton E.	L. 2
306	McCoy, Bernard Eberth	M. 2
347	McCoy, Edward Hugh	L. 2

767	McCrory, Samuel Henry	L. A. 3
1697	McCulla, Roy	D. 2
694	McCulla, Walter Philo	L. 3
623	McDermott, Peter John	M. u
1340	McElroy, Isaac Erwin	L. 3
2574	McFadden, George Joseph	L. A. u
599–	McGee, Alice Florence	G.
2471	McGowan, Alvah Earl	L. A. u
2371	McGregor, James Charles	M. 1
1822	McIntosh, Walter Scott	D. 2
2641	McKee, Leander Ransom	L. A. 1
394	McKenzie, John Augustus	L. 3
1885	McKibbin, George Paul	D. 2
2133	McKirahan, Henry Herschel	S.
2543–	McLanahan, Ethel	L. A. u
2599	McLane, Arthur C.	L. A. 3
967–	McLaughlin, Eleanor	L. A. 4; S.
2323	McLaughlin, Joseph Edmund	L. 1
2081	McLennan, John Sailor	P. 2
2439	McMahon, Thomas	M. 1
2235	McMinn, George Rupert	L. A. 2
2600	McNett, Walter	L. 1
2169–	McRaith, Helen Marie	S.
1067	McVay, Albert Dennis	L. A. 4
1895	McVay, Homer Reese	D. 2
1828–	McVay, Mary Alice	L. A. 2
2137–	McWilliams, Martha Fern	H. M. n
568–	Macbride, Jean	L. A. 4
1713	Mack, Guy Edgar	L. 3
419–	MacKellar, Jennie Edith	S.
1587	Macomb, Thomas T.	H. M. 2
2670–	Madden, Mrs. Georgia	H. M. n
2654	Maennel, Claude Frederick	L. 1
356–	Magowan, Florence Nettie	L. A. 3
1611	Magruder, George Raymond	D. 2
361	Maguire, Daniel Eugene	L. 3
2322	Maher, Thomas Augustine	M. 1
2633–	Mahood, Sarah	M. n
2585	Main, Fred William	L. 1
2304	Maita, Minoru	G.
1645	Maresh, Reginald	D. 2

2097	Marick, George Louis	L. A. 2
2625	Maris, Gerrit	M. 1
2151–	Martin, Bernice Fidelia	M. n
1850	Martin, Frederick Alonzo	L. 2
2006–	Martin, Katheryn	L. A. 3; S.
1730–	Martin, Leonore Lillian	L. A. 2
1066	Martindale, William Harvey	M. 3
2181–	Mason, Laura	S.
1594	Mason, Roy Earl	M. 2
607	Mather, Carl Henry	L. 3
207	Matson, John Archie	M. 2
1876–	Matthews, Lillian Ruth	L. A. 4; S.
2140–	Matthews, Ora Ermina	M. n
2274	Maudlin, Lloyd Zell	D. 1
322–	Maudlin, Mina May	G.
1565	Maurer, Harvey Charles	M. 2
1539	May, Samuel Thomas	L. A. 4; S.
2050	Mayne, Herman Charles	L. A. 2
238	Meade, William Joseph	D. 3
913	Meakim, Roger Joseph	L. A. 3
143	Medin, John Theodore	L. 3
2566–	Meek, Kate Mitchell	G.
697	Mehaffy, John Milton	G.
1886	Meighen, James Leroy	L. 2
1973	Melzner, Arthur Burdell	L. A. 3
1721	Mercer, Herbert Miller	L. 2
289–	Merritt, Edith Whitney	L. A. 4; S.
1987–	Merritt, Mabel Clough	L. A. 2.
2359	Messenger, Fred Henry	M. 1
1781–	Metzger, Belle Agnes	L. A. 2
1754–	Metzger, Della Elizabeth	L. A. 2
2505	Metzger, Royal Jacob	P. 1
532	Meyer, Charles Edwin	D. 3
2000	Meyer, Jacob William	L. A. u
342	Meyerholz, Charles	G; S.
401	Meyers, Jacob Franklin	M. 4
2320	Meyers, John Henry	L. 1
885	Middleton, Edward Duncan	M. 3
2536	Middleton, William Drummond	L. A. 1
480–	Miles, Lulu	L. A. u
1933–	Miles, Mabel	L. A. u

2037	Miles, Matthew James	L. 3
2632–	Millard, Bessie Pearl	M. n
2560	Miller, Albert Elias	L. 1
2111–	Miller, Catherine Marguerite	D. 2
1829	Miller, Claude Melvin	L. A. u
2022	Miller, Dalton Giles	L. A. 2
2158–	Miller, Grace E.	S.
2443–	Miller, Margaret Jane	L. A. 1
2575	Miller, Stanley	L. A. u
2261	Mills, Rollin Virgil	D. 1
2297–	Mingus, Florence Mary	L. A. 1
2513	Minnick, Benjamin Frank	L. 1
422	Mitchell, Lebbeus Horatio	L. A. u
2400	Mitchell, Thomas Warner	G.
2166–	Moffatt, Bessie Ingersol	S.
983	Moffatt, Burnam A.	L. A. 3
1508	Moffett, Lambert Benton	S.
1438	Moffitt, Chester Earl	L. A. 2
2593	Moffitt, Horace Barclay	L. 1
748–	Moler, Margaret Imo	S.
2594–	Moling, Lura May	L. A. 2
2336	Molsberry, Frank Roland	D. u.
2234	Money, Fred Berthaldo	L. A. 1
2667	Monnet, Julien Charles	G.
2259	Montgomery, Leroy Emerson	D. 1
2214–	Montgomery, Mabel	S.
2232	Moon, Herbert Lovelace	L. A. & M. c. 1
2475	Moon, John Clarence	L. A. 1
646	Moon, Roy	M. 4
2567–	Moore, Ella Elizabeth	L. A. 4
2425	Moore, Fred	L. A. 1
2637	Moore, George William	L. A. 1; S.
2147–	Moore, Letta	M. n.
2266	Moore, Walter Newlon	M. 1
541–	Moravec, Agnes Emma	L. A. 4
1338–	Mordoff, Carrie Ella	G.
1843	Morgan, Frank Sonun	L. A. 2
1213–	Morgan, Mabel Ruth	M. 3
1523–	Morris, Daisie May	S.
1855	Morris, Harry Renard	L. A. 2
256–	Morris, Mary Makepeace	L. A. 3

2092	Morrison, Samuel Turner	L. 3
1870–	Morton, Helen Louise	L. A. 4
1887	Morton, William Glasspell	M. 2
2610	Mosher, Orris, Jr.,	L. 1
1836	Moss, William George	D. 2
574–	Moulton, Lulu	L. A. 3
2182	Mouso, Frank William	S.
1369	Mowry, Ross Rutledge	L. 3
1420	Mueller, Herman August	G.
2598	Mueller, Louis Francis	L. A. 1
453–	Mueller, Mary Theresa	S.
2064	Mueller, Otto Henry	L. A. 4
2426	Muir, William Wallace	D. 1
2162–	Mullany, Grace Catherine	S.
2501	Muller, Charles Engelbert, B.	L. 1
2335	Mullin, William	M. 1
734	Mulock, Edwin Hulbert	L. 1; S.
17	Munger, Francis Elbriggs, Jr.,	D. 3; D. p.
1560	Munger, Milo William	D. 2
193	Murchison, Kenneth	M. 4
2254	Murphy, Artemas Ward	D. 1
629	Murphy, Charles Alonzo	L. A. 2
1651	Murphy, Frank Eugene	M. 2
218–	Murphy, Genevieve Beatrice	L. A. 4
2369	Murphy, Harry Wilton	M. 1
1251	Murphy, Thomas William	M. 4
2061–	Murray, Mary	L. A. 4; S.
2188	Myers, Joel Yates	S.
1013	Myers, Perry Cullen	G.
2636	Myler, Melvin Wesley	D. 1
2345–	Myslis, Sarah Freda	L. A. 1
1723	Naberhuis, Henry Albert	L. A. 2
504	Naftzger, Jesse Blaine	M. 3
133–	Namur, Cecelia Barbara	S.
2673	Nealley, Edward Moses	L. A. 4
1790	Neander, Victor Theophilus	L. A. 2; S.
2238	Negus, Alvah	M. 1
2239–	Negus, Mrs. Cora Weber	M. 1
451	Negus, Henry	L. 3
1734	Negus, Joseph Elisha	L. A. 2
2366	Newell, James Stuart	P. 1

635	Newman, Clarence Adelbert	L. A. 3
1985–	Nichols, Ethel Gay	L. A. 2
1968	Nicholson, Harry Carl	L. 2
1795	Nies, George Henry	D. 2
1775–	Nimocks, Sara Ausbon	M. 2
2217	Nisley, Frank Newton	G; S.
1736	Nixon, Samuel Ross	P. 2
2199–	Noble, Edna Centennial	S.
2564	Noel, Charles Elbert	L. 1
1584	Noland, Clyde Amandee	M. 2
2060	Norton, James Lee	L. 2
1354	Nugent, Francis	L. A. 4; S.
2216–	Nugent, Mary Josephine	S.
2576	O'Brien, Richard Joseph	L. 1
1701	O'Connell, John Francis	L. A. 2
570	Oakes, William Thomas	L. 3
1924	Ochiltree, Henry Clyde	L. 2
2311–	Odell, Florence Margaret	L. A. 1
2529	Oelkers, Leroy Carl	L. 1
2503–	Ogden, Elizabeth Jane	L. A. 1
1937	Okerlin, Oscar William	H. M. 2
1712	Olinger, Reuben James	L. A. 2
2170–	Oliver, Joanna Blessing	S.
2487	Opfer, Albert Benjamin	P. 1
2312	Orr, William Graham	M. 1
2389	Osborn, Wayne McVeigh	L. 1
1241	Ostling, Carl August	M. 3
1075	Owen, William Roy	H. M. 4
182	Paarmann, Juergen Herman	S.
2582–	Padmore, Grace	L. A. 1
1932–	Padmore, Julia Rachel	L. A. 4
459	Page, Charles Price	L. A. 4
2433	Pahlas, Henry Martin	L. A. & M. c. 1
675–	Paine, Katherine	G; S.
1771–	Paine, Sarah Olivia	L. A. 2
2309	Parker, Edward Stuart	M. 1
2161–	Parkhurst, Mary Louisa	S.
2521–	Parry, Alice	L. A. u
1958	Parsons, Harry Clifford	H. M. 2
2066–	Parsons, Peryl Marie	L. A. u
2268	Paschal, Karl B.	D. 1

2479	Pasley, Crockett Hector	L. 1
2525–	Patterson, Aileen	L. A. u
2569–	Pattie, Martha	L. A. 3
2597–	Patton, Ruby Emma	L. A. 2
2455–	Paulson, Caroline H.	L. A. 1
2383–	Paulus, Martha Ann	L. A. 1
1449–	Paxson, Susan	G; S.
2524	Payne, Paul Marvin	L. A. 1
54	Pease, Herbert	M. 3
1572	Pelton, Henry Clark	D. 2
2263	Pentecost, Verne Reynolds	L. A; M. 1.
2358	Perrine, Peter Ralph	L. A. 1
2221–	Perry, Mrs. Jessie Booth	S.
1690–	Peters, Alice Gilchrist	L. A. 3
1670	Pfeiffer, Harry Earl	M. 2
1845	Phelps, Henry Hurst	L. A. 2
1738	Phelps, Howard Lynn	L. A. 2
2222–	Pickrell, Priscilla	S.
1925–	Pierce, Juliette	L. A. 4
1980	Ping, John Roy	L. 3
1599–	Polevoy, Nine Dmitrevna	M. 2
2053–	Polk, Mary Emma	G.
2387	Polley, Lovette Morse	D. 1
556	Pomeroy, William Henry	L. 3
2546	Porter, Erl Watt	P. 1
647–	Porter, Mary Montgomery	L. A. 4
1443	Porter, Roy Samuel	M. 4
2457–	Portlock, Beth M.	L. A. 1
1605	Potter, William Walcott	M. 2
398	Pratt, Harlow Munson	L. A. & L. c. 4
1429–	Pratt, Mrs. Margaret Allie Tobin	L. A. 4
500	Prescott, Lee Washbon	M. 2
792–	Preston, Clara Carlton	L. A. 4
2125–	Preston, Edith	L. A. 1
2478	Price, Hiram T.	L. A. 1
1979–	Price, Mildred	L. A. 1
2329	Pritchard, Kirkwood Alexander	L. A. 1
1172	Quaife, Howard Herman	D. 3
2155	Quaife, Milo Milton	S.
1534	Quigley, Edward Gross	S.
2666	Quigley, Louis Leroy	L. A. 1

1041–	Quigley, Majorie	L. A. 4
2395	Quigley, Robert Crozier	L. A. 1
1545	Quigley, Samuel	L. A. 3; S.
467–	Quigley, Sarah Ruth	G.
2616–	Raguet, Marguerite	L. A. 3
1919–	Rall, Carolyn Louisa	L. A. 4; S.
2571	Ramsell, Richard Roemer	L. 1
2542	Randall, Clifford Alonzo	L. A. 1
248	Randall, Frank Hall	G.
1711	Randall, Ray	L. A. 2
1814	Ratcliff, William Connor	L. 2
2154–	Rate, Laura Frances	S.
2429	Rathbone, Don Quincy	D. u.
1603	Rawhouser, Charles David	D. 2
2011	Read, Ralph Lewis	L. A. 1
2099	Redfield, Roy Addis	L. A. 1; S.
1746	Reed, Ivy Leslie	L. A. 4; S.
1428	Reever, William H.	G.
1129–	Reherd, Mary Louise	L. A. 2; S.
103	Reinemund, Charles Adam	M. 3
2490–	Remley, Agnes	L. A. 1
2248–	Remley, Alice	L. A. 1
521	Resser, Jesse	L. A. 4
2450–	Rex, Mae	L. A. 2
2635–	Rhodes, Charlotte Alice	H. M. n.
2010	Rice, Arthur Henry	P. 2
2174–	Rice, Jennie Gillis	S.
934	Rich, David W.	G; L. 1; S.
2554	Richards, Richard Lee	M. 1
1570	Richey, Albert Roy	M. 2
2236	Rider, Thomas Thiel	L. A. & D. c. 1
1868	Ridgeway, William Bailey	L. 2
1898	Riemcke, Charles August	P. 2
1744	Rink, Clarence William	L. A. 1; S.
2126	Rinker, Purly	L. A. 1
793	Risk, Loren	L. 3
2267–	Rittenmeyer, Adelaide Alice	L. A. 1
304	Rittler, Elmer George	D. 3
1638	River, Edward Burleigh	M. 2
636–	Roach, Lena	L. A. 4
120	Robb, Robert Worth	M. 3

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2628–	Roberts, Grace Estella	L. A. u.
2563	Roberts, Marcus Claude	M. 1
2397–	Robertson, Agnes Hendrie	L. A. 2
2349–	Robinson, Agnes Louise	L. A. 1
1183–	Robinson, Alta Aileen	G.
1026	Robinson, Reuben Artman	M. 4
2621	Robinson, Robert Edwin	M. u.
2423	Robinson, Vincent James	L. A. 1
2612	Roche, Thomas Francis	L. 1
2606	Rogers, Ernest Albert	H. M. u.
805–	Rogers, Frances Louise	S.
2531	Rogers, Thomas Lowry	L. A. u.
2360	Rose, Edward Spangler	P. 1
80	Rosenbladt, Fritz	M. 3
1010	Rosenstone, Bertram W.	S.
1786	Ross, Carl Wesley	L. A. 2
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1911	Rowat, Harry Lewis	H. M. 3
2002	Rowe, Frank Noyes	M. 3
2519	Royal, Lester Ambrose	H. M. 1
1094	Royal, Malcolm Allen	L. A. & H. M. c. 3
2484–	Royal, Myrtle Emeline	L. A. 1
2509–	Ruby, Sarah Amelie	L. A. 1
2638	Ruff, Edward John	L. A. 1
1567	Rugh, Frederick Walter	D. 2
973–	Rundell, Mabel Anne	L. A. u.
2584	Rutledge, Herbert Alvin Ingram	L. A. 4
2264	Ryan, John Joseph	L. 1
1427	Saam, Theodore J.	G.
1756–	Safley, Agnes Isabel	M. 3
2331	Salisbury, Herbert John	L. A. 1
2262	Sampson, Harry Ellis	L. 1
2460	Sandven, Nels O.	M. 1
402	Sandy, Benjamin Brooks	H. M. 4
953	Sauerbry, Frank Carl	M. 3
146	Savage, John Elton	L. A. 3
2376	Savage, Samuel Micajah	M. 1
375	Sawyer, Bert Ray	D. 3
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2119	Scallon, Hubert William	L. A. 4 & L. c.
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1364	Scarr, Furniss Morton	L. A. 2
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2326	Schaub, Lincoln Frederick	G.
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2540	Schenk, Caspar	L. A. 4
2171–	Schichtl, Caroline Magdalene	L. A. 1; S.
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2583	Schipfer, Lloyd Albert	M. 1
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2523	Schneider, Daniel Detrich	L. A. 3
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1616	Schroeder, Ralph	L. A. 2
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101	Sebern, Richard Clyde	M. 3
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2530	Seemann, Fred Julius	L. A. 1
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1672	Sheehan, Edward Michael	M. 2
2414–	Sheldon, Celia Helen	L. A. 1
2580	Sherbon, John Bayard	M. 3

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889	Sherman, William Arthur	D. 3
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1400–	Sherwood, Mrs. Elizabeth Lewis	G; S.
142	Shiley, George Francis	M. 4
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1489–	Shuck, May	S.
1660	Shumway, Herbert Garfield	D. 2
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695	Sieg, Lee Paul	G.
2106	Siemen, Edward Anthony	L. A. 1
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993	Simonton, Thomas Milton	G.
2296	Siverling, George Earl	D. 1
1817	Skelley, Silas Emmett	L. A. 2; S.
528	Skinner, Bert Sydney	L. 2
2200	Skinner, John Martin	S.
1256–	Slavata, Clara Josephine	L. A. u.
1184	Sloan, Sam Berkly	G.
64–	Smeltzer, Cora Hulda	M. 3
2570–	Smith, Addie Mahala	L. A. 1
578–	Smith, Alta Grace	L. A. 3
869	Smith, Charles Leonard	M. 3
2175–	Smith, Edith Jane	S.
2202–	Smith, Jennie Pearl	S.
2615	Smith, John Seymour	L. 1
274–	Smith, Mabel Clare	G.
1783–	Smith, Matilda Annie	L. A. 2
726–	Smith, Maude Louise	L. A. 3
55	Smith, Thomas Corwin	L. 3
1346	Smith, Will Samuel	D. 3
1813	Snedicor, Fred Elwyn	L. A. 2
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1791	Soper, Fred Clifford	M. 2
2143–	Soper, Mrs. Isabel Johnston	M. n.
1059	Souders, John Cloyd	M. 3
2373	Soukup, Joseph Edward	D. 1

261	Spangler, Harrison Earl	L. A. 4 & L. 1; S.
2047	Spaulding, Edmund Holden, Jr.	L. A. 3
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1951–	Speidel, Ida Theresia	L. A. 4
190–	Speidel, Mae Elizabeth Agnes	L. A. 3
2652	Spencer, Frank, Jr.	L. 1
1955–	Spinney, Blanche Gardner	L. A. u.
474–	Sporleder, Mary Louise	L. A. 3
1263–	Spurgeon, Floris J.	G.
944	Spurgeon, Theodore	L. 2
2412–	Stach, Anna Katherine	L. A. 1
2195–	Stagg, Lila Eleanor	S.
2535	Stanfield, Sidney Evert	L. 1
1996	Starbuck, William Ray	D. 2
2338	Stearns, Robert Wilson	L. A. 1
2007	Steck, Daniel Fredric	L. A. u.
981	Steele, Earl Newel	L. 1
2317	Steere, Kenneth David	L. A. 1
2565	Stefansson, Vilhjalmr	L. A. 4
1300–	Stein, Sarah Elizabeth von	S.
1589	Stelling, Charles Henry Andrew	M. 2.
2558	Stevens, James Merrill	L. A. 1
2568–	Stewart, Grace	L. A. u.
1325	Stockdale, Charles Paul	M. 2
1328–	Stockdale, Ella Naoma	L. A. 1
2464–	Stockdale, Verne Katherine	L. A. 1
2173–	Stocker, Ellen Gilman	S.
1563	Stoltenberg, Walter Peter	M. 2
2321–	Stone, Edna Pearl	L. A. 1
2237	Stoner, Dayton	L. A. & M. c. 1
2240–	Stoner, Nellie Dae	L. A. 1
2384–	Stookey, Marian	L. A. 1
2453	Stoops, Wade Carlisle	L. A. 2
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1590	Story, William Henry	D. 2
456	Stover, Samuel Kirkwood	L. A. 4
1802–	Strange, Joanna Gleed	L. A. u; S.
2108–	Stratton, Frances Eleanor	L. A. 1
844	Stromsten, Frank Albert	G.
1963	Struble, Isaac Irving	L. A. 2
2241	Struck, Kuno Herbert	M. 1

972	Stryker, Clarence Andrew	D. 1
1700	Stuart, Charles Edward	L. 2
434–	Stuart, Clara	G.
2418	Stuhler, Louis	M. 1
1114	Sullivan, Eugene John	L. 3
123	Sullivan, Lawrence Francis	M. 3
1662–	Sunier, Bertha	L. A. 2
771–	Sunier, Fanny Annette	G; S.
2310	Sutherland, Charles Ross	L. 1
1761	Swaggart, Luman Birch	L. A. 4
2347	Swaine, Robert Taylor	L. A. 1
397	Swan, Charles James	D. 3
2315–	Swanson, Julia Elmida	L. A. 1
271	Sweney, Marshall Charles	L. A. 4
177	Swift, Charles Henry	M. 3.
866	Swift, John Loras	L. 3
2102	Swigart, Willard Carlisle	L. 1
2659	Swindle, Anthony J.	L. 1
2180–	Swiney, Elizabeth Van Patten	S.
552–	Swire, Ethelind	L. A. 3
2275–	Swisher, Alice	L. A. 1
279–	Switzer, Grace Ellen Elizabeth	G; S.
2388	Switzer. James Wolfe	L. A. 1
208–	Switzer, Katherine May	L. A. 4
1456–	Swoyer, Loemma E.	L. A. u,
161	Talcott, Don Deroy	M. 3
1766	Taylor, Edwin Scott	D. 2
2651	Taylor, Lewis William	L. A. u.
644–	Taylor, Maude Estella	L. A. 3 & M. c.
1904	Taylor, Maurice Hume	D. 2.
2516	Taylor, Thomas Blaine, Jr.	L. 1
42	Teufel, John Carl	M. 3
927	Thomas, Abram Owen	L. A. 3
1617	Thomas, Clarence I.	M. 2
2215	Thomas, Samuel L.	S.
1362	Thomas, Seth	L. A. 4
1797	Thompson, Earl G.	D. 2
1016–	Thompson, Elizabeth	L. A. 3; S.
1034	Thompson, Herbert Garfield	L. 3
1975	Thompson, James Reed	M. 2
1077	Thompson, John Wesley	L. A. 3; S.

258	Thompson, Ralph Ulysses	L. 3
2300	Thornburg, Willard Newell	M. 1
1691	Thornburg, William Vestal	M. 2
2281	Tierney, Charles Matthew	M. 1
1983	Tinker, Francis Enos	D. 2.
472	Tobin, Richard Griswold	L. 1
369	Tourgee, John Birney	L. 3
2186	Trainer, Fred Eggert	S.
640–	Troth, Mira	S.
2403	Tupper, Eliakim William	L. A. 1
2149–	Turk, Helen	M. n.
517	Turner, Edward Marsh	M. 3
1874	Tweed, Horace Anton	L. A. 2
2367	Underwood, Joseph Harding	G.
2307	Vail, Glenn Winfred	D. 1
1869	Van De Steeg, George Herbert	L. A. 2
702	Vander Ploeg, William Garfield	L. 3
1863	Van der Zee, Jacob	L. A. 2
1901	Van Metre, Richard Thompson	M. 2
633	Van Ness, Edwin Jones	L. 3
2539–	Van Ness, Orpha May	L. A. 1
2655	Van Steenbergen, John	L. A. 1
2611	Vandivert, Arthur Hubert	G.
1902	Vaughan, Claude Luverne	M. 2
1920	Vaughn, John Thomas	L. 2
378–	Veblen, Agnes Kari Anne	L. A. 2
393–	Veblen, Gertrude Ingeborg	L. A. 2
395–	Veblen, Signy Arndora	L. A. 2
2517	Visser, John C.	L. A. 1
2190	Voelker, Paul Frederick	S.
1733	Voogd, Dick	L. 3
1553	Vos, John	D. 2
2291–	Wachs, Anna Frances Rosaline	L. A. 1
2286	Wade, Owen George	D. 1
2135–	Wagner, Harriett Daisy	H. M. n
2252	Walker, Evahn Russell	M. 2
281	Walker, Henry Grass	L. A. u
267	Walker, James Henry	L. 3
2391	Wallace, Arthur Clarence	L. A. 1
2581	Walrod, Claude Delestine	L. 1; G.
637	Walsh, John Graney	L. A. 4; G; M. u

365	Waltman, William Henry	H. M. 4
1689–	Ward, Martha Viola	L. A. 4
796	Warner, Orlyn Dorphon	L. 1
1286	Washburn, Frank Augustus	M. 4
1934	Wassam, Clarence Wycliffe	L. A. 4
1504–	Waterbury, Ella Irene	L. A. 2
2318–	Waterbury, Flora Avis	L. A. 1; S.
1341	Waterman, William Thomas	L. 3
931	Watland, Clarence	D. 1
1639	Watros, Ray Alfonso	D. 2
2156	Watson, Emery Earnest	S.
305	Watson, Harry Chibnail	L. A. 4 & L. c.
29	Waud, Clarence Cary	D. 3
1349	Webber, Charles Albert	S.
1559	Webbles, William Fred	P. 2
2466–	Weber, Eva	L. A. 1
2522	Weinrich, August Fred	L. A. 1
1554	Weir, Matt Blakely	M. 2
758	Welch, David Sewall	L. A. 3; S.
185	Welch, Hershey Samuel	L. A .4
1464	Weld, LeRoy Dougherty	G.
1707	Wells, John Dennison	L. A. u
179	Wenner, Edward Jackson	L. 3
2070	Wesley, Rolland DeWitt	D. 2
2442	Wessel, Perry	M. 1
2604	West, Clifford Bateman	L. A. 4
1820	West, George Parsons	L. A. 2
2430–	West, Myrta Gertrude	L. A. u
1970	West, Philip Cecil	L. A. 2
2328	West, Walter Ernest	M. 1
1600	Westenhaver, Earl H.	D. 2
2448	Wharton, Ralph Waldo Emerson	L. A. u
2204–	Whedon, Alma Theodora	S.
1463	Whedon, Arthur DeWett	S.
2228–	Wheelock, Mary Edna	S.
2434	Whetstone, Robert Reed	P. 1
1930	Whitacre, Max	L. A. 2
1166	Whitaker, Ellis John	M. 4
2435	White, Edward Harvey	M. 1
2634–	White, Effie Jane	H. M. n
2146–	White, Rena E	M. n

1357	White, Warren Henry	L. A. 3; S.
385	White, Wilmer Welrose	L. 2
2270	Whiting, Nathan Dudley	P. 1
2114	Whiting, Samuel Danforth	L. 1
270–	Whitley, Gladys Call	L. A. 4
902–	Whitmore, Clara B	M. 4
2301	Whitsell, Loyd Lane	D. 1
2639	Wickman, Henry	L. A. 1
2280	Wickman, Herman John	M. 1
1358	Wieben, Edward Emil	L. 2
1770	Wiehr, Josef	L. A. 2
479–	Wilcox, Mrs. Mary De Vol	G.
609	Wilcox, William Henry	L. 3.
1197	Wild, Peter Rowland	H. M. 4
1799	Wiler, Wesley David	D. 2
1804–	Wiley, Stella Lucile	L. A. 2
2277	Wilkinson, Clifford Austin	D. 1
1772	Will, Charles Louis	L. 2
1750	Wille, Otto Victor	L. A. 2
328	Willett, James Horace	L. 2
1910	Willging, Edgar Henry	L. 2
1446–	Williams, Bertha Alice	S.
411	Williams, Creighton David	M. 1
1704–	Williams, Etta Louise	L. A. 2
1549–	Williams, Josephine Viola	S.
1167–	Williams, Mabel Clare	G; S.
512	Williams, Samuel Clyde	D. 3
2408	Williams, Thomas Earl	D. 1
173	Williamson, Ralph Clinton	L. 2
1666	Willis, Harry Douglas	L. A. 3; S.
2003	Willits, Ira Raymond	S.
546	Wilson, Carlton Charles	L. 3
1356–	Wilson, Clara Rosa	L. A. 2.
1841–	Wilson, Helen Benton	L. A. 2.
2198	Witmer, John Earl	S.
598–	Wolf, Bertha Sarah	L. A. 2
1760	Wolverton, William Curtis	M. 2
2664–	Wood, Adelia Marilla	L. A. u.
1952	Wood, Clarence Daniel	L. 3
2605–	Wood, Mildred Grace	L. A. u.
2062	Woodruff, Lyman Wallace	D. 2

2314	Woods, Arthur Daniel	M. 1
2642–	Woods, Mary Louise	L. A. 1
2313	Worth, Craig	M. 1
2401	Wray, Frederick E.	L. 1
2474	Wright, Bert J.	L. A. 1
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1935	Wright, William Coutts	L. A. 2
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186	Wyckoff, Craton Donald	D. 3
1798	Wyland, Benjamin Franklin	L. A. 2
2224–	Yates, Mrs. Anna Shaw	S.
952	Yates, Edward Gilbert	L. 3
1679	Yavorsky, George William	M. 2
2507	Yergey, Alford Luther	L. A. & M. c. 1
2462	Yoder, Ray Wheeler,	L. A. u.
1579	Young, Frank Glynn	H. M. 2
1938	Young, Hugh Edward	L. A. 2
747–	Young, Iowa Madge	L. A. 3
251	Young, James Myron	M. 4
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